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Base Realignment and Closure (BRAC) and Organizational Restructuring in the DoD

Implications for Education and Training Infrastructure

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Preface

Two major ways in which the Department of Defense (DoD) strives to improve its efficiency is through the consolidation of defense facilities and changes in its governance structure (e.g., reorganization of defense agencies or field activities). Both types of initiatives can have significant effects on the governance structure and physical infrastructure of institutions that offer education, training, and development (ET&D) to DoD personnel. In anticipation of future DoD efficiency improvement efforts, the DoD Office of the Chancellor for Education and Professional Development asked the RAND Corporation to examine the ways in which selected ET&D institutions have been affected by past initiatives.

This document reviews the experiences of four institutions, two of which experienced significant changes in their infrastructure in the 1990s, and two of which did not. For each case study site, we document the rationale and processes that preceded decisions about infrastructure change, describe the institutional context at the time of the proposed change, provide a detailed account of the change process in cases where change occurred, and generate an assessment of the effects of changes on the institution's effectiveness and efficiency. We conclude with a summary of lessons learned from the case studies and recommendations to institutional leaders and sponsors faced with decisions about infrastructure change.

This research was conducted for the DoD Office of the Chancellor for Education and Professional Development within the Forces and Resources Policy Center of RAND's National Defense Research Insti-

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Summary

The Department of Defense (DoD) is continually seeking to improve the efficiency and effectiveness of its support activities. A major vehicle for achieving cost savings is the consolidation of defense facilities, which has periodically been done through the base realignment and closure (BRAC) process. Another vehicle for improving efficiency and effectiveness is governance change, which can be achieved, for instance, through the consolidation of defense agencies or field activities or by reassigning sponsorship of functions or institutions.

When defense infrastructure is reconfigured or organizational lines are redrawn, support functions, including education, training, and development (ET&D), can experience complementary changes to their governance structure and physical infrastructure. In the past, some ET&D institutions have welcomed infrastructure change, while others have resisted it. Still others did not have the opportunity to implement infrastructure change even though it might have benefited them.

With a new round of BRAC scheduled for 2005, the DoD Office of the Chancellor for Education and Professional Development asked RAND to examine the ways in which selected ET&D institutions have been affected by past efficiency improvement initiatives. As the principal advocate for academic quality and cost-effectiveness of DoD civilian educational activities, the Chancellor's Office can provide a systemwide and cross-service view of the potential effects of future DoD efficiency improvement initiatives on the ET&D infrastructure.

We conducted four case studies. Two of the institutions studied, the Defense Information School (DINFOS) and the DoD Polygraph

Institute (DoDPI), experienced significant changes in infrastructure in the 1990s. Two others, the Defense Language Institute Foreign Language Center (DLIFLC) and the National Geospatial Intelligence College (NGC, formerly the National Imagery and Mapping College [NIMC]), did not. We interviewed a variety of stakeholders associated with each case study site, including current faculty and administrators, former directors and other institutional authorities, resource sponsors, functional sponsors, site historians, community leaders, former BRAC Commission staff, BRAC office staff, and special task force members. For each case study site, we document the rationale and processes that preceded decisions about infrastructure change, describe the institutional context at the time of the proposed change, provide a detailed account of the change process in cases where change occurred, and generate an assessment of the effects of changes on the institution's effectiveness and efficiency.

Based on the experiences of the four case study sites, we derived a number of lessons and recommendations for ET&D institutions and their sponsors that might face decisions about infrastructure change in the future. Those lessons and recommendations are organized around four scenarios—relocation, remaining in a location after base closure, new facility construction, and consolidation of institutions—and are summarized below.

Relocation

The study focused on two sites that underwent relocation—DINFOS and DoDPI—and one for which relocation was proposed—DLIFLC. The experiences of those three institutions yielded the following lessons and recommendations:

- **Ensure that potential effects on both quality and cost-effectiveness are considered in selecting a new location.** To achieve its mission, an institution must function in a location that affords it the tools to do so effectively and at a reasonable cost. Further, decisions about relocation made by entities that assume more than one

ET&D sponsorship role are likely to be more balanced in terms of quality and cost-effectiveness considerations, and therefore more easily accepted, than decisions generated by a single sponsor. In cases where resource sponsors also assumed the roles of functional and policy sponsors, balanced decisions were made about relocation, the institutions and their customers were involved in the decisions, and the decisionmaking process proceeded relatively smoothly. However, in one case where the resource sponsor did not also fill functional or policy sponsorship roles or solicit the involvement of those sponsors or the institution's leadership, the decisionmaking process was controversial and chaotic, and the resource sponsor's recommendation was ultimately rejected.

- **Make human resource considerations a top priority.** When relocating an educational institution, human resource considerations are of critical significance. Although both DINFOS and DoDPI relocated, only DoDPI lost large portions of its staff. The main reason for the difference in the two institutions' experiences is arguably that DoDPI's staff was predominantly civilian, whereas DINFOS's was staffed almost entirely by military personnel. Some at DoDPI considered the staff turnover that resulted from relocation a serious setback, but others considered it an opportunity to make needed changes to staff composition. Sponsors should anticipate the numbers of existing faculty and staff that will move with the institution and evaluate the desirability and manageability of the anticipated staffing effect. Other considerations include moving costs, cost of living in the new location, and related issues.

- **Inform and involve staff in planning and managing relocation.** Decisive leadership and communication with stakeholders make for a smoother relocation experience. Although any relocation can be disruptive in the short run, effective management of the process—especially human resource issues—can avoid major disruptions of an institution's normal operations and facilitate planned changes. DINFOS's successful relocation benefited from its functional sponsor's ability to balance the role of leaders in the relocation process with that of other stakeholders, who were

involved in ongoing consultations about the move. But consultation with stakeholders in itself does not always ensure a smooth relocation. Although DoDPI also made regular efforts to involve stakeholders, its leadership was hampered by delays beyond its control and communication problems that led to stress and economic hardship for some faculty and staff before and after the move.

Remaining After the Closure of a Parent Installation

DLIFLC is the only example in our study of an institution that stayed in place after its host installation was closed. Although the situation is unusual, it is possible that another ET&D institution might find itself in a similar situation during the next round of BRAC. We derived the following lessons and recommendations from DLIFLC's experiences in the 1991 and 1993 BRAC rounds:

- **Carefully consider an institution's need for support from a host base.** The language instruction provided by DLIFLC did not require many resources of the sort that only a larger military facility could provide; this may not be the case for many institutions. Institutions and their sponsors should examine options for basic facility support (i.e., public works) and housing for students, as well as factors that might affect the institution's ability to fulfill its mission (e.g., collegial support).
- **Identify partnerships that can sustain the institution in its current location.** Several types of organizations could be interested in supporting an institution's decision to stay in its original location, including DoD sponsors, other organizations with interests in the same functional area, or local governments. For DLIFLC, the City of Monterey played an important role in this regard, serving as an advocate for DLIFLC to remain in Monterey and assuming large portions of the institution's support costs.

New Facility Construction

Two of the institutions we studied, DINFOS and DoDPI, designed and occupied new facilities built specifically for them using BRAC funds. Their experiences highlighted the following lessons and recommendations.

- **Look for opportunities presented by the BRAC process.** While most institutions cannot invite themselves into the BRAC process, institutions and their sponsors who anticipate being affected by the process should consider how they might seize opportunities presented by BRAC to benefit the institution and its stakeholders. Neither DINFOS nor DoDPI would likely have been able to construct a new facility outside the BRAC process. The availability of BRAC funding was particularly significant in the case of DINFOS, which was able to use funds tied to the impending closure of two bases to facilitate the physical consolidation of three schools and build a state-of-the-art facility.
- **Involve faculty and staff in designing new facilities.** A major goal of new construction is to design a facility that meets the needs of its occupants. Faculty and staff should be consulted throughout the design process regarding building and equipment features that would enhance their ability to communicate, collaborate, and produce high-quality work.

Consolidation of Institutions With and Without Physical Infrastructure Change

While both DINFOS and NGC resulted from the administrative consolidation of institutions that were located in different geographical locations, the DINFOS consolidation included a physical consolidation of facilities, while the NGC consolidation did not. Examination and comparison of the experiences of DINFOS and NGC provide interest-

ing lessons about the value of physical consolidation as a complement to administrative and academic consolidation. Those lessons are the basis for the recommendations presented below.

- **Take advantage of opportunities to consolidate institutions as a means to eliminate unneeded redundancy.** Both academic and physical consolidation can lead to significant improvements in efficiency. In many cases, course content is general enough to serve the needs of more than one community. By undergoing both academic and physical consolidation, DINFOS was able to reduce the amount of instructional space needed as well as the total number of courses offered while attending to the unique needs of each service.
- **When feasible, complement administrative consolidation with physical consolidation.** Collaboration and integration of communities is difficult without physical consolidation. NGC's experience illustrates the difficulty of integrating different communities when those communities remain geographically separate. NGC's academic consolidation was particularly difficult because the different schools it brought together had long-standing differences in terms of cultures and work styles. DINFOS addressed cultural differences by encouraging close collaboration among groups and by collocating them in a single facility. If physical consolidation is not an option, efforts should be made to relocate faculty and staff to achieve appropriate representation of each community at each location, and travel of faculty and staff between campuses should be supported and encouraged.
- **Reevaluate and, if warranted, revise organizational structures to reflect the goals of the consolidation.** If a goal of a consolidation is to merge disciplines, then faculty, staff, and students should be reorganized along lines that reflect the end goal of the merger. Another important way to facilitate consolidation is by directing faculty and staff to work together to coordinate curricula. The building of a common curriculum allows faculty and staff to interact and learn ways in which their disciplines can be coordinated.

Improving Decisionmaking at the System Level

The experiences of the four ET&D institutions studied here demonstrate the variability with which institutions and their sponsors are formally allowed and informally capable of influencing and implementing infrastructure change. Stakeholders at the system level also vary in the degree to which they are authorized to make decisions about ET&D infrastructure. Representatives from the Office of the Under Secretary of Defense (Personnel and Readiness) (OUSD [P&R]) will have a formal role in the 2005 BRAC round as part of a joint cross-service group focused on education.

There are at least four powerful contributions system-level stakeholders can make to decisions about ET&D infrastructure:

- **System-level ET&D advocates can work to balance considerations of quality and efficiency in decisions about ET&D infrastructure.** By facilitating communication, providing guidelines for decisionmaking, and acting as arbiters, offices at the system level are uniquely positioned to play a coordinating role among different sponsors with interests in the same institution.
- **Decisionmakers at the system level can set guidelines for the roles institutional leaders and sponsors play in the infrastructure change process.** There is currently a high degree of variability in the type and extent of stakeholder involvement in decisions about ET&D infrastructure. Expanded formal guidelines could clarify the roles of sponsors other than resource sponsors and address the appropriate role of institutional leaders in the process.
- **High-level decisionmakers can provide visibility for customers of ET&D who might otherwise be left out of the decisionmaking process.** Capturing the customer perspective is essential if ET&D demand considerations are to be incorporated in decisions about ET&D infrastructure. Decisionmakers at the system level are positioned to advocate inclusion of the customer perspective in decisionmaking when appropriate.

- **Efficiency improvement efforts initiated at high levels in the DoD can reconfigure ET&D infrastructure and improve support of ET&D missions.** System-level stakeholders are in a position to consider overarching ET&D system needs in the context of BRAC and other efficiency improvement initiatives. A system-level ET&D advocate could potentially use DoD-level efforts to eliminate gaps or overlaps in ET&D offerings and otherwise enhance the quality and efficiency of the services provided to DoD personnel.

Acknowledgments

List of Abbreviations

AFIS	American Forces Information Service
ASD	Assistant Secretary of Defense
ASD(C3I)	Assistant Secretary of Defense for Command, Control, Communications, and Intelligence
BASOPS	Base Operations
BRAC	base realignment and closure
C3I	Command, Control, Communications, and Intelligence
CE	continuing education
CIFA	Department of Defense Counterintelligence Field Activity
CINCs	Commanders in Chief
COBRA	Cost of Base Realignment
COE	Council on Occupational Education
DCI	Director of Central Intelligence
DINFOS	Defense Information School
DIS	Defense Investigative Service
DLI	Defense Language Institute
DLIFLC	Defense Language Institute Foreign Language Center
DMA	Defense Mapping Agency
DoD	Department of Defense
DoDPI	Department of Defense Polygraph Institute
DPS	Defense Polygraph School

DPW	department of public works
DSS	Defense Security Service
DVIS	Defense Visual Information School
ET&D	education, training, and development
FAR	Federal Acquisition Regulations
GAO	General Accounting Office
JMIP	Joint Military Intelligence Program
MILCON	Military Construction
MIIS	Monterey Institute of International Studies
MOS	military occupational specialty
MP	Military Police
MTC	Missionary Training Center
NAS	Naval Air Station
NGA	National Geospatial-Intelligence Agency
NGC	National Geospatial Intelligence College (formerly NIMA College)
NIAS	National Imagery and Analysis School
NIMA	National Imagery and Mapping Agency
NIMA College	National Imagery and Mapping College (officially NIMC, more commonly known as NIMA College)
NPIC	National Photographic Interpretation Center
NPS	Naval Postgraduate School
NSGI	National System of Geospatial Intelligence
OASD	Office of the Assistant Secretary of Defense
OASD(C3I)	Office of the Assistant Secretary of Defense for Command, Control, Communications, and Intelligence
OASD(PA)	Office of the Assistant Secretary of Defense, Public Affairs
OSD	Office of the Secretary of Defense
OUSD	Office of the Under Secretary of Defense
OUSD(I)	Office of the Under Secretary of Defense for Intelligence

OUSD(P&R)	Office of the Under Secretary of Defense for Personnel and Readiness
PCS	Permanent Change of Station
PDD	psychophysiological detection of deception
PoM	Presidio of Monterey
QA	quality assurance
SLPS	School of Leadership and Professional Studies
SMDR	Structure Manning Decision Review
TRADOC	Training and Doctrine Command
TSSB	Training Task Selection Board
USAAA	United States Army Audit Agency
USAMPS	U.S. Army Military Police School
USD(I)	Under Secretary of Defense for Intelligence
USD(P&R)	Under Secretary of Defense for Personnel and Readiness

Introduction

Background

The Department of Defense (DoD) is continually seeking new opportunities to improve the efficiency and effectiveness of its support activities in order to direct a larger portion of its budget to its main mission of defending the United States. The interest in reducing the costs of support activities becomes even more important in a time of national crisis. A major vehicle for achieving cost savings is the consolidation of defense facilities, which is most often done through the base realignment and closure (BRAC) process.[1] Another vehicle for improving efficiency and effectiveness is governance change—which can be achieved, for instance, through the consolidation of defense agencies or field activities or by reassigning sponsorship of functions or institutions.

When defense infrastructure is reconfigured or organizational lines are redrawn, support functions, including education, training, and development (ET&D), can experience complementary changes to their governance structure and physical infrastructure. Such changes may be especially disruptive to ET&D institutions that have a dedicated physical capacity. Many educational institutions serving DoD civilians are located on military bases, and thus can be directly affected by DoD infrastructure change initiatives. Institutions can also be affected more indirectly by high-level changes in governance. In both cases, the ET&D institutions often face dramatic changes to their own infrastructure—changes that can affect both their effectiveness

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[1] See Hix (2001) and U.S. General Accounting Office (1997) for background on BRAC.

and their efficiency. In the past, ET&D institutions have responded in a number of ways to DoD infrastructure and high-level governance changes. Some have considered and welcomed infrastructure change, while others have considered and decided against it. Still others did not have the opportunity to implement infrastructure change even though such change may have benefited them.

These varying responses raise questions about the degree to which ET&D institutions and their sponsors can influence decisions regarding efficiency improvement initiatives and potential changes to infrastructure that affect them. These questions become particularly important with a new round of BRAC scheduled for DoD in 2005.[2] Upcoming decisions to close bases might require ET&D institutions to consider changes to their infrastructure. Each infrastructure change scenario can have important effects on an institution's effectiveness and efficiency. Institutions need to better understand the implications of each scenario in relation to institutional objectives.

To shed insight on these issues in anticipation of future BRAC rounds, the DoD Office of the Chancellor for Education and Professional Development asked the RAND Corporation to examine the ways in which selected ET&D institutions have been affected by past efficiency improvement initiatives. This report presents the results of four case studies. Two of the institutions studied, the Defense Information School (DINFOS) and the DoD Polygraph Institute (DoDPI), experienced significant changes in infrastructure. Two others, the Defense Language Institute Foreign Language Center (DLIFLC) and the National Geospatial Intelligence College (NGC, formerly the National Imagery and Mapping [NIMA] College), did not. In examining the experience of these institutions, we focused on two broad areas of decisionmaking related to infrastructure change:

- In what ways can educational institutions and their stakeholders influence decisions about whether and how an ET&D institution's physical infrastructure should change?

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[2] In December 2001, Congress passed the National Defense Authorization Act for Fiscal Year 2002, which authorizes a new round of BRAC for the DoD in 2005.

- Given that a decision to change has been made, how can institutions and their stakeholders affect the change process?

The lessons learned from the experiences of these institutions can benefit other institutions and their sponsors. The Chancellor's Office is interested in documenting those lessons and passing them on to relevant stakeholders.

Base Realignment and Closure: A Major Vehicle for Infrastructure Change

There have been four rounds of BRAC in 1988, 1991, 1993, and 1995. The 1988 BRAC round resulted in 16 major closures, the 1991 round 26, the 1993 round 28, and the 1995 round 27, for a total of 97 closures out of 495 major domestic installations in 1988.[3] A fifth round is currently slated for 2005. As discussed in more detail in Appendix B, past decisions to close bases within the context of BRAC have resulted from a series of recommendations that flowed from the military services, to the Secretary of Defense, to a bipartisan BRAC Commission that recommended a package of closures and realignments. The President, the Senate, or the House of Representatives could then accept or reject the recommendations put forward by the BRAC Commission, but the recommendations could not be amended. Decisions regarding tenants of military installations slated for closure were made by agreement between host installations and executive agents of the tenants.

In past BRAC rounds, decisions about ET&D institutions affected by base closure decisions were influenced by at least five groups of stakeholders:

- the institutions themselves
- the communities in which the institutions reside
- the institutions' sponsors[4] (e.g., command, resource, functional, policy)

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[3] U.S. General Accounting Office (1997).

[4] Different types of sponsors generally have different roles: Command sponsors have direct command authority; resource sponsors provide funds and other resources; functional sponsors have an interest in curriculum content based on workforce ET&D requirements; and policy

- the institutions' customers
- system-level stakeholders (e.g., the BRAC Commission, the Secretary of Defense).

Because there was very little formal guidance about the roles of each stakeholder in the decisionmaking process, the degree of involvement and influence of each stakeholder group varied greatly across cases.

During the most recent round of BRAC, which was initiated in 1995, executive agents were the only ET&D sponsors with a formal role in determining where an institution should be located if its host installation were closed.[5] The executive agents were typically the resource sponsors (i.e., funding organizations) of educational institutions. The formal process called on the host organization to coordinate with the institution and its executive agent to identify special considerations or requirements and discuss a preferred new location. Once a location was agreed upon, the recommendation would be included in the Secretary of Defense's report to the BRAC Commission, and the host would determine facility requirements and coordinate movement timelines.

During the last BRAC round no formal role was played by the institution's leadership or its sponsors other than the resource sponsors, although in most cases, those other stakeholders were indeed able to influence decisions about an institution through informal means. Similarly, the communities in which an institution was located and the institution's customers were able to participate informally in decisions about ET&D infrastructure. At the system level, the Secretary of Defense and the BRAC Commission played the central roles; however, responsibility for the DoD ET&D system was largely decentralized at the time.

The situation at the system level changed with the establishment of the DoD Office of the Chancellor for Education and Professional Development in 1998. The Chancellor's Office brings an important

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sponsors establish system-level policy. These roles often overlap, however, so that a single office within DoD may perform more than one type of sponsorship or may sponsor multiple ET&D providers.

[5] Host organizations of military bases slated for closure were directed to engage the executive agents of tenant institutions in decisions affecting those tenants (DAIM-BO, 1995).

new element to the upcoming BRAC decisionmaking process. As the principal advocate for the academic quality and cost-effectiveness of DoD civilian educational activities, the Chancellor's Office can provide a systemwide and cross-service view of the potential effects of future DoD efficiency improvement initiatives on the ET&D infrastructure. This role might be especially significant as the BRAC process moves away from the service-oriented focus that characterized many past rounds to give more emphasis to the joint needs of the services.

Approach

As mentioned above, this report provides the results of four case studies undertaken in 2002. The Defense Information School (DINFOS) is the product of a consolidation and relocation of three institutions, two of which were on bases slated for closure in the 1991 round of BRAC. The Department of Defense Polygraph Institute (DoDPI) relocated after its parent installation was selected for closure as part of the 1995 BRAC round. The Defense Language Institute Foreign Language Center (DLIFLC) remained in its current location after its parent installation was closed following the 1991 BRAC round and despite a recommendation during the 1993 BRAC round that it relocate. Finally, the National Geospatial Intelligence College (NGC, formerly NIMA College) is the result of an ongoing high-level governance and mission consolidation effort that has not been complemented by infrastructure change.

The choice of case study sites was the result of discussions with the DoD Chancellor and his staff. As a group, the four sites represent different ranges and combinations of variables including student mix (from mostly civilian to almost all military), size, and infrastructure change scenario. However, they are not necessarily representative of all DoD ET&D institutions that might be faced with infrastructure changes in the future. Differences in the characteristics of institutions or changes in BRAC guidelines could affect the degree to which lessons derived from these examples can be generalized to other cases.

In this report, we discuss the roles of various ET&D stakeholders in the decisionmaking process surrounding infrastructure and other high-level organizational changes at these institutions. For each case study site, we document the rationale and processes that preceded decisions about infrastructure change, describe the institutional context at the time of the proposed change, provide a detailed account of the change process in cases where change occurred, and generate an assessment of the effects of changes on the institution's effectiveness and efficiency. Three members of the research team visited each site for one or two days between May and July 2002, toured the facilities, and completed interviews both during and subsequent to the visits. Our interviews at the four sites were guided by four protocols that were parallel in structure to permit the gathering of similar information across cases. The protocols are presented in Appendix C. We developed additional interview protocols and conducted interviews as needed to pursue issues that emerged from the initial interviews at the case study sites. Interviews not conducted in person at the case study sites were conducted by telephone. We interviewed a variety of stakeholders associated with each case study site, including current faculty and administrators, former directors and other institutional authorities, resource sponsors, functional sponsors, site historians, community leaders, former BRAC Commission staff, BRAC office staff, and special task force members. As standard research practice, we advised all interview participants that statements they made during the course of an interview would not be attributed to them in any report.

The research team also reviewed available documentation about the institutions both in advance of site visits (e.g., founding directives, Web-based materials) and after site visits (e.g., descriptions of curricula, memoranda or reports made available by interview participants). When possible, information gathered during interviews was verified against published information.

Except where the authors indicate that participants held mixed or conflicting views, the findings presented here typically reflect consensual responses from two or more interviewees. Interview notes were prepared by the lead researcher assigned to a case study site and were then circulated among other members of the site visit team for corrobo-

ration or elaboration. In cases where we surfaced factual disagreements, uncertainties, or ambiguities in responses from different interviewees to the same questions, we made follow-up phone calls and searched documents for clarification. If we were unable to resolve a question using available sources, we omitted the matter from the report.

The material presented in this report relies heavily on the memory and judgment of individuals about events that occurred in the past—in some cases as long as 13 years ago. Further, not all of the interview participants were at the institutions or in the same roles there when the relevant change occurred. Additionally, much of the subject matter that forms the focus of this report is not documented in corroborating written reports or memoranda. However, for the reasons described above, it is worthwhile to attempt to capture the lessons that were learned about infrastructure changes to ET&D institutions from those who were involved or affected so similar changes can be carried out more effectively in the future.

Organization of the Report

The next four chapters describe each of the four case study institutions and their relevant experiences in detail. Chapter Six presents lessons learned and recommendations regarding future infrastructure change.

Defense Information School

Our first case study offers an example of successful infrastructure consolidation. The Defense Information School (DINFOS) was established at Fort Meade, Maryland, as part of the 1991 round of BRAC. The institution in its present form resulted from the consolidation and relocation of three service-run schools from three different locations: the Defense Information School from Fort Benjamin Harrison, the Defense Visual Information School (DVIS) from Lowry Air Force Base, and the Defense Photography School (DPS) from the Naval Air Station in Pensacola, Florida. Today, DINFOS is responsible for providing public affairs and visual information training to DoD civilians, other federal agencies and foreign governments, and most commonly, to newly enlisted military service personnel. DINFOS employs 250 faculty and staff, most of whom are military personnel. The school offers courses in public affairs, journalism, broadcasting, graphic arts, still and motion photography, and equipment maintenance to 3,000 students annually.

DINFOS is an institution whose sponsor welcomed becoming a part of the BRAC process and was able to use the process to improve the efficiency and effectiveness of the training provided. We first describe the current governance of the institution and then discuss the components of the decision to relocate and consolidate, the process through which those decisions were made, and the resulting outcomes.

Current Governance

The Office of the Assistant Secretary of Defense, Public Affairs (OASD[PA])currently serves as the command, functional and policy sponsor for DINFOS, and the American Forces Information Service (AFIS), a subordinate activity to OASD(PA), serves as the school's resource sponsor (see Figure 2.1).

Figure 2.1
Defense Information School External Governance
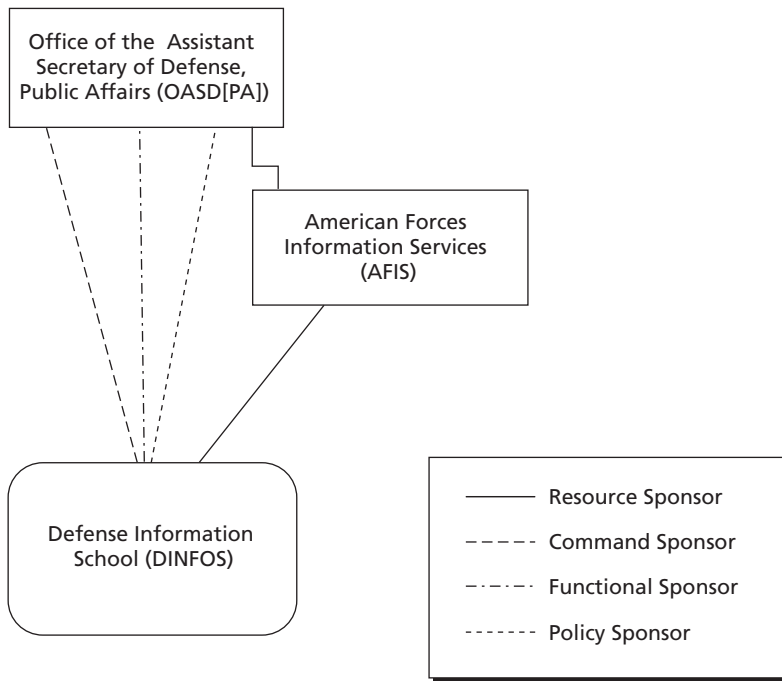
The Decision to Consolidate and Relocate

The decision to consolidate and relocate the three public affairs schools needs to be understood in the context of related governance changes involving the service-based institutions that would later come together as DINFOS.

Governance Changes

In the early 1990s, discussions began at the senior levels of DoD about the possibility of changing the governance structure of service training in public affairs, visual information, and photography. Governance changes were discussed as a means of improving both the effectiveness and efficiency of service-based training institutions. At the time, there was little "jointness" in general among the services, a situation that did not begin to change until the passage of the Goldwater-Nichols Act.[1] The Army was the executive agent for the Defense Information School, which provided public affairs training at Fort Benjamin Harrison. The Air Force's Air Education and Training Command was the executive agent for training in motion media provided at Lowry Air Force Base (AFB). The Navy Chief, Education and Training, was responsible for still media training at its photography school at the Naval Air Station in Pensacola, Florida. The disconnectedness of these organizations was felt to be increasingly ineffective, as well as costly. According to former AFIS and service school representatives, the three schools were experiencing financial difficulties and were out of step with what the services needed.

AFIS believed more central oversight was necessary. This view was seconded by many other leaders in the services, including the public affairs chiefs and others, who believed in the importance of public affairs.

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[1] The Goldwater-Nichols Department of Defense Reorganization Act of 1986 was passed with the intent to reorganize the military forces command structure to increase jointness among the services, and ultimately, to improve war-fighting capability. The act created more central authority in the Chairman of the Joint Chiefs of Staff, and the Commanders in Chief (CINCs, now called Combatant Commanders). The Goldwater-Nichols Act also increased civilian authority in the Department of Defense by moving responsibility for oversight of seven functions out of the Services' control and into the Office of the Secretary of Defense; these included acquisition, auditing, Comptroller, information management, Inspector General, legislative affairs, and public affairs (Goldwater-Nichols Act, 1986; Lewis et al., 2001).

The Army largely agreed that DINFOS should come under the auspices of AFIS, because at the time the services were downsizing, and the opportunity to divest mission responsibilities and overhead was welcome. The executive agents in the Navy and the Air Force were not initially supportive, because they did not want to lose control of their technical training. In the end, however, both conceded to the order of the Secretary of Defense in 1992 that established AFIS as the functional sponsor for public affairs and visual information. Once AFIS was established as the functional sponsor for public affairs and visual information, the Defense Visual Information School (DVIS) was formally created from elements of the Air Force's 3420th Technical Training Group, and the Navy's School of Photography was renamed the Defense Photography School (DINFOS, 1998). See Figure 2.2 for a summary of the evolution of the current DINFOS.

Figure 2.2
Evolution of the Defense Information School
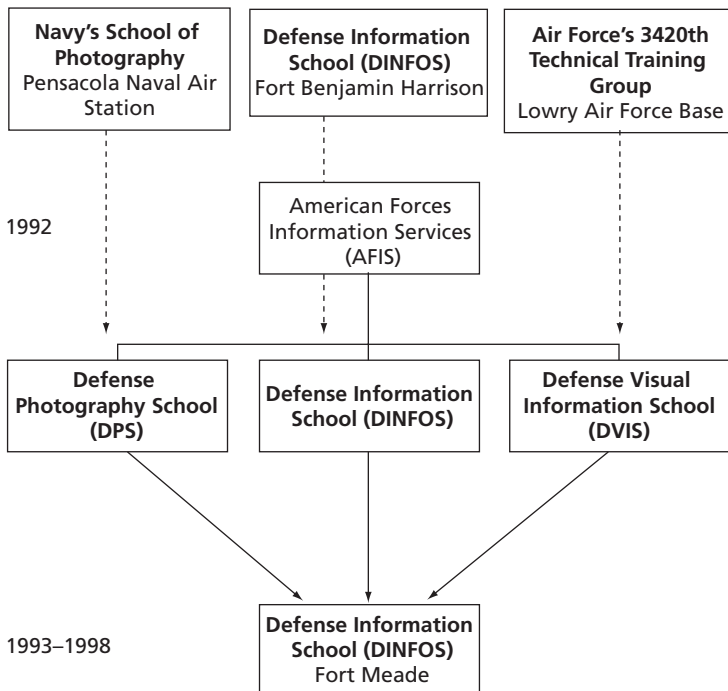
Base Realignment and Closure Decisionmaking in 1991

The 1991 BRAC round presented AFIS with a fortuitous opportunity to facilitate governance changes as well as infrastructure change in the three service schools providing public affairs training. In 1991, AFIS requested a study by the Inter-service Training Review Organization to examine the potential for consolidating public affairs training provided by the three services into one facility. The study concluded that efficiencies could be gained by such a consolidation. Based on the study and the decision by the BRAC Commission to close Fort Benjamin Harrison and Lowry Air Force Base in the 1991 BRAC round, AFIS was able to make a compelling case for physically combining visual information training that was being provided by the Air Force and Navy training in photography, graphics, and electronic news gathering, among other subjects, with public affairs training offered by DINFOS. The opportunity to consolidate operations promised significant economies of scale. AFIS requested that the Army Audit Agency (USAAA) conduct an audit of the requirements for the consolidated school. USAAA projected $5.2 million in cost savings per year and the need for 85 fewer faculty members. The relocation and consolidation would also mean a decrease in instructional space from 390,000 square feet to 292,000 square feet. Armed with the studies, AFIS put together a plan to consolidate the three service-run functions into a single joint school.

At first, this decision met with some resistance from the services. Although the Army was supportive, the Navy and Air Force were again reluctant to support AFIS's efforts to change the way training was provided. In particular, the Navy was concerned about losing control of its technical training, losing jobs at the Pensacola Naval Air Station, and moving from a location that was considered a focal point for much of the activity involving still and motion media in the Navy. It informally offered to host the consolidated school at the Naval Air Station in Pensacola.

The Air Force wanted to move the Visual Information School to Keesler AFB in Mississippi because it already had a training group there, and it wanted to keep its training collocated with its electronics maintenance courses. According to a former DVIS representative, the Air Force was concerned that the quality of the training would not be as good in a consolidated training environment. It disputed cost figures developed by AFIS and gained strong congressional support for a move to Keesler.

AFIS considered the Air Force's argument and reexamined its figures, but in the end remained committed to its initial cost projections. Air Force stakeholders dropped their resistance before responding to AFIS's reexamination of cost figures. Because of its desire to be close to Washington, D.C., AFIS never seriously considered establishing the consolidated DINFOS at Pensacola, as DPS had proposed.

An AFIS representative believes that part of the reason AFIS's proposal was accepted was due to the prominent role public affairs played in the first Gulf War. Strong relationships between the Office of the Assistant Secretary of Defense for Public Affairs (OASD[PA]) and other high-level DoD decisionmakers were also likely key to AFIS's success in achieving its objective.

AFIS selected Fort Meade, Maryland, as the new location for DINFOS. There were several reasons why it believed Fort Meade was the best option. First, the installation's proximity to Washington D.C., which is considered the hub of public affairs, made it attractive. The location provides access to a variety of media professionals who can serve as faculty and guest lecturers. It was clear that the school would not get the same quality or quantity of such resources in other locations. In addition, the services' public affairs leadership as well as AFIS headquarters are all located there. Fort Meade's location outside the Beltway meant that AFIS would not have to acquire congressional approval for the move. The Army was in full agreement with AFIS and offered a choice piece of real estate for the new DINFOS at Fort Meade.

AFIS also considered other locations, including Quantico, Virginia, and Andrews AFB, but the former had neither the space nor the infrastructure for the school, and the latter not only lacked the infrastructure, but also was reluctant to increase the level of activity on the base. Fort Belvoir was considered as well, but the Army did not want any new activities at that installation. As noted above, Pensacola was not seriously considered.

The Consolidation and Relocation Process

The consolidation of the three schools was a challenge, but due to the concerted efforts of the parties involved, a significant amount of work

was accomplished in a very short time. The process itself required significant changes in personnel, curriculum, and the physical facilities used by the institution. Although the process was not problem free, the end result was positive on the whole, particularly in terms of the way stakeholders were able to use the BRAC process for the benefit of the new, consolidated institution.

An initial problem surfaced early in the process, when decision-making about the consolidation was conducted by a committee consisting of AFIS and service representatives. The committee approach led to little initial progress, and, as a result, AFIS decided to dismantle the committee and instead, get feedback from key stakeholders when necessary.

A key AFIS decision was to split responsibility for the consolidation of the academic curriculum from that of the construction of the new facility and relocation of the three schools. One leader was put in charge of dealing with curriculum issues such as consolidating courses and handling the Structure Manning Decision Review (SMDR),[2] among other responsibilities, while another focused on the logistics of building the new facility and moving the three schools. The two leaders worked together very closely, and according to a current AFIS representative, the close relationship was critical to their success.

Communication with Stakeholders

Ongoing communication with stakeholders was also important for the success of the consolidation process. Initially, the military services each sent their own detachments to participate in the consolidation planning process. They were concerned that the training would be of lesser quality than what had existed before. To facilitate communication with stakeholders, AFIS spent four months developing a briefing that outlined all aspects of the consolidation. AFIS staff delivered the briefing to all the stakeholders to inform them of what was being done

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[2] The Structure Manning Decision Review is a process in which service training needs are compared against the available courses at a training facility for a given fiscal year. The results are used to determine the need for new courses and the number of instructors (Manpower and Force Analysis Directorate, 2005).

and to assure them that the consolidation plans were on track. AFIS representatives made concerted efforts to brief service leadership—an approach that was vital to the development of trust between AFIS and the services. The services gradually began downsizing their public affairs capabilities and transferring responsibility to AFIS. They still remained involved in decisionmaking, but eventually relinquished control.

A former AFIS representative maintains that some did not want the new school to be called DINFOS because they wanted to communicate clearly that the school was going to be a new, joint venture. But in the end, AFIS decided that DINFOS was still an appropriate name. AFIS made many presentations and engaged in heavy marketing to ensure that all stakeholders understood that the new DINFOS had a new joint mission.

Consolidation of Academic Curriculum

In deciding how to consolidate the academic curriculum, AFIS first created a flow chart on how the merging would proceed. At the start of this process, the names of courses and faculty titles were all different—"apples, oranges, and pears," according to AFIS. To bring all the service representatives together to define their common needs and service-specific objectives, the staff in charge of curriculum consolidation used a Training Task Selection Board (TTSB).[3] They also involved current instructors from the schools. A new curriculum was developed based on stakeholder feedback. The curriculum included a common core of courses that all the services needed as well as additional courses for unique service requirements. For example, all the services were interested in basic still photography, but the Navy in particular needed its students to learn to take photographs from aircraft carriers, so a course was created specifically for Navy personnel.

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[3] TTSB meetings are convened by DINFOS on an on-going basis. The TTSB allows the Services to communicate to DINFOS their specific training needs by providing a list of each task they want DINFOS to teach their students, the knowledge level that should be obtained, and how the skill should be tested. The TTSB meets regularly every few years, and at times meets more frequently when there is a requirement that needs to be addressed. The TTSB serves as a means to resolve Service differences on what is taught.

The curriculum consolidation staff also developed new instructor training courses to encourage faculty to be " joint oriented." At first, the services resisted these new training courses because they were accustomed to certifying their own instructors. In response, AFIS invited each service to certify the new training courses, and each eventually did so.

Relocation and Construction of a New Defense Information School Facility

At the institution level, commanders of the schools were given the responsibility to coordinate the physical move to Fort Meade without losing any training billets in the process. This required very specific choreographed activities to ensure that the right equipment, students, and faculty were moved at the appropriate times. The staffs assigned to organize the process rehearsed the move activities in the months before the actual relocation. Former DINFOS representatives said these efforts ultimately made the move the success that it was.

According to an AFIS representative, the BRAC process was "the best part" of the process, because there were set procedures and funds allocated for the activities. AFIS received BRAC money from the Air Force and the Army, while the Navy gave regular Military Construction (MILCON) appropriations money. The amounts allocated were based on the number of students sent to DINFOS from each service. The Army contributed 45 percent of the student load, the Navy accounted for 20 percent, and Air Force students constituted 35 percent. According to a former AFIS representative, BRAC funds covered most of the cost of the school's construction, and the Navy (using MILCON funding) and AFIS provided the rest.

A key benefit of the BRAC process for DINFOS was the construction of a new facility designed specifically for the needs of its new occupants. Such a facility is unusual among educational institutions in DoD, which are usually housed in buildings converted from other activities. The design and construction of the new DINFOS building happened very quickly—within one year. Each of the schools provided input on the design. AFIS representatives went to each school to get feedback, and every instructor "touched the blueprints." A total of $32 million was allocated for the construction of the school, and the services absorbed the Permanent Change of Station (PCS) costs.

AFIS had one key person coordinate input from the various stake-holders and handle the basic design, which was later handed off to the Baltimore Army Corps of Engineers, and then to a design firm that handled the final matters. AFIS proactively worked with the Army Corps of Engineers to obtain the final approvals for the building.

Two temporary facilities at Fort Meade were used initially, because the BRAC process closed the old locations much faster than AFIS could build the new building. DVIS had to be off Lowry AFB by May 1994 and the old DINFOS had to be off Fort Benjamin Harrison by July 1995. AFIS temporarily sent the wet-processing photography activities of DVIS to Pensacola, to be housed with DPS, because the environmental clearances needed at Fort Meade could not be obtained in time for the move. The new facility was occupied in 1997.

A timeline outlining significant milestones in DINFOS's consolidation and relocation is shown in Table. 2.1.

Table 2.1
Key Events in the Defense Information School Consolidation and Relocation

1991	The BRAC Commission decides to close Lowry AFB and Fort Benjamin Harrison, homes to DVIS and DINFOS, respectively.
	AFIS requests a study from the Inter-service Training Review Organization of the feasibility of consolidating the three schools into one at a single site.
1992	AFIS becomes the functional sponsor for public affairs, visual information, and broadcasting in DoD.
	The Deputy Secretary of Defense approves the consolidation of DINFOS and relocation to Fort George C. Meade, Maryland.
1993	Part of DVIS moves into temporary facilities at Fort Meade. Photography training is transferred to the Defense Photography School in Pensacola, Florida, until the permanent facility at Fort Meade is completed.
1994	Lowry AFB is closed, and the remaining DVIS courses and equipment are moved to Fort Meade.
1995	DINFOS moves from Fort Benjamin Harrison, Indiana, to the temporary facilities at Fort Meade, Maryland.
1997	The new facility is completed and occupied by DVIS and DINFOS.
1998	The Defense Photography School moves from the Naval Air Station to the new facility at Fort Meade.

Outcomes

The consolidation and relocation of DINFOS resulted in significant changes in the mission of the school, its facilities, faculty, and staff composition, and the curriculum. A summary of outcomes is shown in Table 2.2.

Table 2.2
Summary of Outcomes of the Defense Information School Consolidation and Relocation

What changed as a result of the DINFOS consolidation and relocation?	
Mission	Yes
Governance	Yes
Budget	Undetermined
Facilities	Yes
Operations	Yes
Faculty and staff	Yes
Students	No
Curriculum	Yes

Mission

The mission of DINFOS broadened to include visual information and still media, in addition to general public affairs training.

Governance

The governance of DINFOS was centralized under the OASD(PA) through AFIS. AFIS became the functional sponsor for public affairs training, as well as for visual information and still media training. In addition, AFIS became the command and resource sponsor for the consolidated DINFOS, and the commandant of the consolidated DINFOS reported to AFIS. Recently, command and functional sponsorship of DINFOS were transferred to OASD(PA). Thus, AFIS is currently only the resource sponsor for DINFOS.

All three DINFOS commandants since the consolidation have been Army personnel. A current AFIS representative suggested this is because Army officers tend to manage much larger staffs than their

peers in the other services, so they are better suited to direct an institution the size of DINFOS.

Budget

Preconsolidation budget information was not available, so we were unable to determine how the consolidated DINFOS budget compared to the combined budgets of the "old" DINFOS, DVIS, and DPS prior to the consolidation.

Facilities

The new DINFOS building at Fort Meade was designed to give each group of occupants coming from the three schools enough, but not too much, space. The engineers focused on building in technological capacity, as well as additional power and sewage capacity for which the school did not have an absolute need at the time, in anticipation of expansion. That strategy paid off for DINFOS; there was almost an immediate need for more power after it moved into the new building.

A former AFIS representative believes that the consolidation led to greater efficiencies because the new building saves energy and maintenance costs. In addition, the same number of students is served by fewer courses, in a smaller instructional space.

Operations

DINFOS's internal operations undoubtedly changed in many respects as a result of the consolidation. Presumably, the management of human resources, maintenance, facilities, and other support functions were all somewhat different under AFIS and at Fort Meade. However, none of the people interviewed provided specific information about operational changes.

Faculty and Staff

There was a reduction in total staff from 425 to 353 after the consolidation. The percentage of faculty relocations was smaller from Fort Benjamin Harrison than from the other two schools. Most civilian faculty from the three former locations did not move to Fort Meade. Many who did come to Fort Meade stayed for a few years and then

retired and went home. Now, one-third of the service faculty rotates each year. A representative from DINFOS believes the school now has higher quality instructors as a joint service school, due to its ability to draw candidates from a combined pool of applicants from the three services.

Students

The Defense Photography School served between 50 and 75 students per year, and had a proportionately small faculty. Between 175 and 200 students passed through the Defense Visual Information School each year, while the old DINFOS trained approximately 300 students annually. The combined total was nearly 600 students, and now the student body ranges from 500 to 550 students per year. Though it did not lose any training billets, DINFOS had a production gap during the move. It used a recruiting process to offset the interruption by accommodating a surge of trainees just before it moved, followed by a slow increase. On a year-to-year basis, there was no reduction in total soldiers trained.

Curriculum

Those involved in the consolidation believe it led to improvement of quality in the courses offered at DINFOS. During the consolidation, every training course offered by each of the three schools was thoroughly examined. Some courses were discontinued, and overlapping offerings were combined and improved. Fifty-two courses were offered between the three schools originally, and now DINFOS offers 26. Further, now that the school is joint, there is more interaction among the services in designing the curriculum, which has benefited each of the courses. Previously, each service accredited its own courses, but this changed with the consolidation. The old DINFOS was accredited by the North Central regional accrediting body, and then by the Council on Occupational Education (COE) when North Central ended its accreditation of non-degree-granting institutions. Neither DPS nor DVIS were accredited before they were consolidated with DINFOS. When the consolidation occurred, the new DINFOS applied for COE accreditation. The process required a self-study that a former

DINFOS representative believes was beneficial to the consolidation process. DINFOS was accredited without difficulty. In addition to COE accreditation, DINFOS also uses the American Council on Education course examination process to determine credits and transferability of courses.

DINFOS standardized as much of the equipment used for training as possible. DINFOS now encourages the services to buy standard equipment it selects and to provide the school with the equipment for training purposes. DINFOS has benefited from this arrangement and believes quality improvements have resulted from the state-of-the-art hardware and software it is able to use.

Discussion

DINFOS experienced significant changes to its infrastructure in the context of other ongoing changes to its governance. For DINFOS, external governance changes carried out by DoD prompted internal change and reorganization. The governance changes were facilitated by the required relocation of two of the institutions due to the closure of their host facilities under BRAC. AFIS was therefore able to use the funding made available through the BRAC process to improve public affairs training.

The successful consolidation and relocation of DINFOS is likely largely due to the capable management of the process by the leadership of AFIS and the institutions. AFIS organized the move by effectively delegating responsibility for the academic consolidation, facility construction, and relocation of the three institutions. AFIS actively sought the involvement of stakeholders and carefully balanced their input in decisionmaking.

The relocation and consolidation process produced several favorable outcomes for DINFOS. DINFOS now has a new, upgraded, and consolidated facility, paid for primarily with BRAC funds. The school's new location near Washington, D.C., affords it access to a wider range of experts in the field of public affairs who serve as guest lecturers and faculty than any of the schools had previously. Centralized governance

under AFIS gives DINFOS better access to resources and a wider selection of faculty from all the services. Finally, DINFOS has enhanced its cost-effectiveness by not only consolidating the physical space of its facility, but also by consolidating the curriculum from the original 52 courses offered by the three schools to 26 courses.

The DINFOS case also provides insights in terms of the involvement of stakeholders in decisionmaking. The public affairs leadership and AFIS played primary roles in the decisions to consolidate and relocate. They recognized the need to consolidate governance early on, and AFIS was named functional sponsor for public affairs and visual information in 1992. Although AFIS was not involved in selecting bases for closure as part of BRAC, it was able to take advantage of the opportunities BRAC presented and to determine where the consolidated facility should be relocated. Other stakeholders, such as the military services and the institutions themselves, did not have a formal role in the decision to move. However, each of the services made recommendations regarding where the new institution should be located, and their views were taken into consideration.

The participation of all stakeholders was particularly critical in the process of consolidating operations and making the move to Fort Meade. Although AFIS took the lead in managing these processes, other stakeholders were regularly involved and kept informed of developments. A comfortable balance was struck between those who were charged with directing aspects of the process and other stakeholders. For example, when decisionmaking about the consolidation was initially handled by a committee, the group had difficulty making progress. The situation improved when responsibility was divided and given to two leaders. But those leaders might not have been as successful had they not solicited ongoing feedback from stakeholders through interactive workshops and briefings. Gaining stakeholder "buy-in" was likely a key to DINFOS's smooth relocation and consolidation experience.

Department of Defense Polygraph Institute

Our next case study also focuses on an institution that experienced infrastructure change simultaneous with governance change. However, in the case of the Department of Defense Polygraph Institute (DoDPI), these courses of change were independent of each other. DoDPI provides graduate level education and training in the psychophysiological detection of deception (PDD) and provides continuing education (CE) to federal PDD examiners. In addition, DoDPI staff performs quality assurance (QA) inspections of federal agencies to assess compliance with federally mandated PDD standards. Since 1999, DoDPI began an effort to broaden its presence in the scientific and academic research communities in response to the need for more advanced technical expertise in credibility assessment.[1]

DoDPI relocated after its former host installation, Fort McClellan in Anniston, Alabama, was slated to close in the 1995 BRAC round. Whereas some of the other schools on Fort McClellan moved to Fort Leonard Wood, DoDPI administrators asked to move to Fort Jackson in Columbia, South Carolina, and their request was approved.

DoDPI currently has a mix of DoD military and civilian students; civilian students from 22 federal agencies; and students from state and local law enforcement agencies. The enrollment per year for the PDD

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[1] The term "PDD" refers primarily to polygraph testing, although DoDPI's research mission has been broadened to include exploration of voice-based, gaze-based, and other person-based procedures for detecting deception. An exploration of the value of polygraph testing is outside the scope of this document. However, we refer the reader to *The Polygraph and Lie Detection* (National Research Council of The National Academies, 2003) for a recent and thorough review of the subject.

program is approximately 70 students, and enrollment per year for the CE program is approximately 700. DoDPI employs six researchers and twenty-five faculty, all of whom are civilians except two, and many of whom are on detail from various military and other federal agencies.

Current Governance

The DoD Counterintelligence Field Activity (CIFA), under the Office of the Under Secretary of Defense for Intelligence (OUSD[I]), became the executive agent for DoDPI beginning in December 2002. It assumed the roles of command, functional, and resource sponsor for DoDPI. OUSD(I) influences DoDPI directly in its role as policy sponsor (see Figure 3.1). In addition, DoDPI has an executive com-

Figure 3.1
Department of Defense Polygraph Institute External Governance
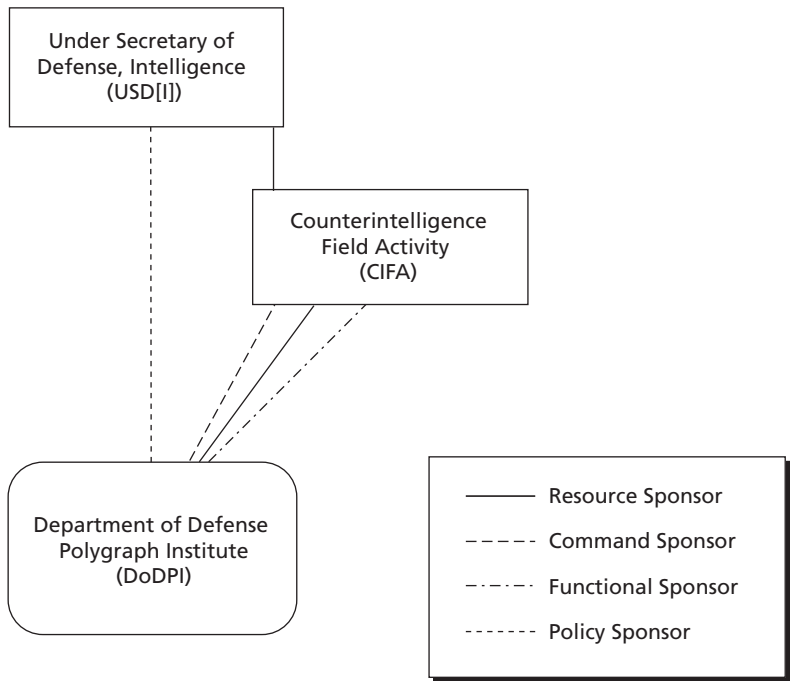
mittee composed of program managers from 22 federal agencies that possess PDD programs. These are the same agencies that send students to DoDPI, and are, in essence, DoDPI's customers. This group has no formal authority, but has input into DoDPI's activities; it can make requests about curriculum and program structure and DoDPI takes its requests under advisement.

The Decision to Relocate

The decision to relocate DoDPI occurred in the context of ongoing governance changes affecting the institution. However, decisions related to governance and infrastructure were essentially independent of each other.

Governance Changes

DoDPI was officially established as an institution in 1986, although its function in providing training to polygraph examiners had been carried out by various organizations dating back to the early 1950s. DoDPI's precursor was the Army Polygraph School, established in 1951, which was part of the Provost Marshal General School located at Fort Gordon, Georgia. The Provost Marshal General School became the U.S. Army Military Police School (USAMPS) in 1962, and the Army Polygraph School continued to be part of USAMPS. Both the Army Polygraph School and USAMPS moved to Fort McClellan, Alabama, in 1975. In 1985 the Secretary of the Army was designated executive agent for all polygraph training in DoD. Then in 1986, the Army Polygraph School was separated from USAMPS and the school's name was changed to the DoD Polygraph Institute. In 1991, DoDPI was placed under the authority of the Assistant Secretary of Defense for Command, Control, Communications, and Intelligence (ASD[C3I]).

Between 1995 and 2002, DoDPI experienced three more governance changes. In 1995, DoDPI began reporting to the Defense Investigative Service (DIS), a DoD agency; DIS was DoDPI's new executive agent and assumed administrative and budget responsibilities for the Institute, but the Office of the Assistant Secretary of Defense for Com-

mand, Control, Communications, and Intelligence (OASD[C3I]) retained functional sponsorship responsibility. This change was, in part, prompted by changes that had occurred following a Joint Security Commission Report in February 1994 that recommended consolidation of the CIA and DoD education and training of polygraph examiners, development of standards within the intelligence community, and a centrally funded and organized polygraph research program. In November 1997, DIS was renamed the Defense Security Service (DSS). As DoDPI's executive agent, DSS provided funding to the Institute, but did not direct Institute policy. At the time, for instance, DoDPI could seek hiring services from multiple sources. In 1998, however, DoDPI became a subordinate activity to DSS. This meant that DoDPI was operationally part of DSS and that DSS set DoDPI procedures. DSS control added an extra layer of management; moreover, DSS had to manage competing missions, and DoDPI's did not always seem to be the best fit. On December 19, 2002, oversight of DoDPI was transferred to the DoD Counterintelligence Field Activity (CIFA), which was established in early 2002. Given that much of DoDPI's work is counterintelligence related, it is believed that DoDPI's mission will fit better with the work of CIFA than with DSS. In 2003, the Under Secretary of Defense for Intelligence (USD[I]) replaced ASD(C3I) as DoDPI's functional sponsor. See Table 3.1 for a summary of changes in DoDPI's governance from 1985 to the present.

Table 3.1
Governance History of the Department of Defense Polygraph Institute

1985	The Army is designated the executive agent of DoDPI.
1991	Control of DoDPI is transferred to ASD(C3I).
October 1995	DoDPI begins reporting to DIS, but ASD(C3I) retains functional sponsorship.
November 1997	DIS is changed to DSS; DSS becomes the parent agency to DoDPI.
December 2002	DoDPI is transferred from DSS to CIFA.
2003	USD(I) replaces ASD(C3I) as functional sponsor.

Base Realignment and Closure Decisionmaking in 1995

In all three BRAC rounds of the 1990s, the Army recommended the Institute's host installation, Fort McClellan, for closure. In addition to DoDPI, McClellan housed a number of schools, including the Military Police (MP) and the Army Chemical School. During the third BRAC round of the decade, in 1995 the BRAC Commission approved Fort McClellan's inclusion on the list of bases recommended for closure.

During the early 1990s, ongoing discussions about the possible closure of Fort McClellan led some DoDPI leaders to begin considering alternate sites for the Institute. Fort McClellan had served the Institute's needs well because it provided an ample supply of MP students, as well as troops in basic training, who could serve as participant subjects in DoDPI student laboratory exercises as well as research protocols. Students conduct practical laboratory exercises as part of the PDD program (a 520-hour course). When Fort McClellan closed, most of its tenants, including the MP school, moved to Fort Leonard Wood, Missouri. Fort Leonard Wood is not a basic training installation, and DoDPI faculty and staff were concerned that the pool of participants for student laboratory exercises would be too small if DoDPI moved there. Once Fort McClellan was slated for closure, DoDPI leadership accelerated its consideration of alternatives and ultimately proposed Fort Jackson as DoDPI's new home.

A great deal of planning went into the selection of Fort Jackson as DoDPI's new site. DoDPI leaders wanted the Institute to be located on a facility with access to an airport and a major postsecondary education institution. However, the most important factor for DoDPI in its choice of Fort Jackson was troop support for its student laboratory exercises. Fort Jackson hosts approximately 50,000 new recruits in basic training per year, so it offers DoDPI a large pool from which to draw, at no cost to the Institute. Other bases have more senior troops, but DoDPI researchers report that scheduling is more flexible with basic trainees, and arrangements for PDD testing in the student laboratory can be accomplished with minimal disruption of their training schedule. The cost issue was an important one, because it can cost up to $150 per day per participant to hire people to take polygraph tests. DoDPI paid some participants at Fort McClellan, but hiring temporary labor-

ers was relatively inexpensive in Alabama compared with most other locations.

DoDPI was also interested in ease of travel for its students. Most polygraph students come from the East Coast, and Columbia has a relatively good-sized airport. Moving DoDPI to the Washington, D.C., area (e.g., Quantico) or to Fort Leonard Wood (because of the association with the Military Police School) was considered, but those alternatives could not address the need for new recruits as laboratory subjects. Quantico was not in a position to let DoDPI use its students, and Fort Leonard Wood did not have the infrastructure required for DoDPI. In addition, traveling to Fort Leonard Wood, located in south central Missouri, would have been inconvenient for students from Washington, D.C.

Another factor motivating the selection of Fort Jackson was that Columbia, South Carolina, offered DoDPI opportunities for close collaboration and the potential to share facilities with four universities and the National Advocacy Center, a school for federal prosecutors.

The Relocation Process

The relocation process was difficult for DoDPI in part because the move was postponed at least once, and possibly more than that. All people interviewed indicated that the move was postponed from January 1999 to July 1999, when it actually took place, but some contend DoDPI was originally scheduled to move in January 1998. Opinions of DoDPI faculty and staff differed as to how well the school's move was managed. Some noted administrators' efforts to keep everyone informed about the process through numerous meetings, including transition briefings and an off-site team-building exercise prior to the move. Others, however, complained of inadequate support and a poorly managed transition from Fort McClellan to Fort Jackson.

The relocation cost DoDPI some staff: Two of the four[2] researchers and two of the three research assistants at Fort McClellan chose not

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[2] This number does not include one researcher who was hired after the school was scheduled to move and was already in Columbia when the move occurred.

to move, as did two of the ten faculty members (one of whom was a detailee scheduled to rotate out in any case). In addition, six of eight administrative and logistics staff and two of three clerical staff chose not to move. Most of DoDPI's staff would have preferred to stay in Alabama. Many members of the support staff were natives of Alabama or had been there for many years and had no desire to move. Understandably, most of those who chose to relocate with the Institute were early- and midcareer staff. Those approaching retirement had little incentive to move.

Replacing such a large percentage of a school's support staff is challenging in the best circumstances, and DoDPI's hiring process was bound by special constraints. The process was run through DSS, which required that support staff have Secret clearance and that research and instructional staff have Top Secret clearance. Some DoDPI employees interviewed reported that due to significant delays in securing clearances for midlevel staff (often two or more years), DoDPI was forced to hold positions open for extended periods of time. One account of the process contradicted reports of hiring lags, suggesting that all or nearly all support staff positions were filled by the time of the relocation by government employees who already held security clearances. Fortunately for the Institute, most of the faculty relocated. However, the relatively few experienced instructors and researchers DoDPI lost possessed valuable institutional knowledge and were difficult to replace.

Some faculty and staff who chose to move with DoDPI to South Carolina reported significant economic disadvantages. Real estate values in Anniston dropped after the McClellan closure was announced, and once the process of closing the installation began, thousands of people moved out of the area at once, which reduced home values further and complicated decisions about home sales and new home purchases. Some people reported selling their houses at a time consistent with the estimated 1998 relocation date and then needing to rent homes while waiting for the move to take place. Many others who waited for more concrete evidence of an impending relocation were unable to sell their homes on the open market and ultimately had no choice but to sell their Anniston houses to a government home pur-

chase program.[3] At the same time, people who were hired by DoDPI while it was still at Fort McClellan but after it was slated to move were advised to not purchase a house in Anniston. But because the school's move date was postponed, some personnel rented homes in Anniston for longer periods than they had anticipated.

Once DoDPI relocated, staff members suffered further unanticipated economic disadvantages. Under the locational pay system of the federal government, both Anniston and Columbia are in geographic areas that do not qualify for additional locality pay; however, according to DoDPI staff, the cost of living in Columbia is considerably higher than in Anniston. On average, South Carolina property values and property taxes are also higher than in Alabama. Moreover, South Carolina, unlike Alabama, taxes military pensions.

The staffing problems, uncertainty, and delays experienced during the relocation process reportedly caused some DoDPI employees significant stress. One staff member said he came to Columbia with "both feet dragging on the concrete." However, others felt that they were adequately warned about the higher cost of living in Columbia, that the move was not unusually challenging, and that Columbia is a more desirable place to live than is Anniston.

Construction of a New Department of Defense Polygraph Institute Facility

DoDPI was able to use BRAC funds to construct a new building at Fort Jackson and thus sought improvements over the previous facility at Fort McClellan. The new building houses both instructors and researchers, permitting better communication and collaboration than was possible at Fort McClellan. Another improvement over the Fort McClellan structure is better air conditioning.

However, the new building lacks some features that DoDPI faculty and staff enjoyed at Fort McClellan. The labs at Fort Jackson boast an impressive video recording capability but lack the two-way mirrors that were incorporated in the labs at Fort McClellan, despite a preference ex-

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[3] All civilian employees who owned homes at the time of the BRAC announcement had access to the government home buy program.

pressed by some faculty and researchers that labs be equipped with both features. Budget constraints affected several other aspects of the building as well. For example, the limited level of funding precluded tiered seating in the classrooms that was one of the benefits of the Fort McClellan facility, and some faculty complained about the small size of the library and the dearth of break rooms. Others noted the absence of dimmers on the lights, too few restrooms in the building, and poor electrical work. Due to growth of the Institute, DoDPI has already outgrown the new building in terms of the space needed for its employees.

Although some of the negative features of the new building were anticipated ahead of the relocation, others were not discovered until after the new facility was occupied. In retrospect, some DoDPI staff felt that they should have monitored the building process more closely. Although a DoDPI representative attended most of the facility meetings and visited Fort Jackson periodically, in hindsight, that representative believes that some of the shortcomings of the new building could have been avoided through more active involvement of DoDPI management throughout the process. In addition, some faculty and staff felt it would have been helpful if the building designers had solicited more input from DoDPI instructional staff, so that pedagogical concerns could be better addressed.

A timeline outlining significant events in DoDPI's relocation is shown in Table 3.2.

Table 3.2
Key Events in the Relocation of the Department of Defense Polygraph Institute

1991	Fort McClellan is considered for closure as part of BRAC.
1993	Fort McClellan is again considered for closure.
1995	Fort McClellan is slated for closure.
January 1998	DoDPI is scheduled to move, but the move is delayed.[a]
January 1999	DoDPI is again scheduled to move, but the move is delayed again.
February 1999	The research team moves to Fort Jackson.
April 1999	The last class is held at Fort McClellan.
July 1999	The new facility is completed, and all personnel are moved to Fort Jackson.
August 1999	First DoDPI class at Fort Jackson.

[a]We were not able to establish a consensus on this point.

Outcomes

The move from Fort McClellan to Fort Jackson resulted in numerous changes for the institution, but the essence of the school remained the same—the changes were more at the margins than at the core. Table 3.3 summarizes changes that occurred at DoDPI following its move from Fort McClellan to Fort Jackson.

Table 3.3
Summary of Outcomes of the Department of Defense Polygraph Institute Relocation

What changed as a result of the DoDPI relocation?	
Mission	No
Governance	No
Budget	No
Facilities	Yes
Operations	No
Faculty and staff	Yes
Students	No
Curriculum	No

Mission
The mission of DoDPI has not changed as a result of the move, but the research conducted at DoDPI has expanded as the Institute has matured.

Governance
As shown in Table 3.1, the governance structure of DoDPI has changed several times over the life of the Institute. However, none of the governance changes were related to DoDPI's relocation, which was purely a consequence of the 1995 BRAC decision.

Budget
The impact of the move on DoDPI's budget was minimal. DoDPI's funding level was not changed as a result of the relocation.

Facilities

Relocation of an institution can lead to upgraded facilities, and in many ways did for DoDPI. Yet in some respects DoDPI's new facility is inferior to the Fort McClellan structure, due in large part to budget constraints, but also perhaps because school administrators and faculty lacked sufficient input into the building design and because senior DoDPI leadership did not monitor the construction process as closely as it admits it might have.

Operations

While there were some minor changes associated with moving to a new site, there were no substantive changes in the school's operations.

Faculty and Staff

Relocating also led to changes in faculty and staff composition. As noted earlier, many of the Institute's civilian employees chose not to make the move to Fort Jackson. In sum, two faculty members, six administrative and logistics staff, two clerical staff, and four from the research division did not move and had to be replaced.

Students

Neither the size nor the composition of the student body was affected by the move.

Curriculum

The content of DoDPI's curriculum was not affected by the relocation. DoDPI increased the number of courses from two to three per year prior to the move, but the year of the move it only offered two courses. Soon after relocating, the Institute resumed offering three courses.

Discussion

DoDPI's change in infrastructure was parallel to, though not integrated with, ongoing changes in its governance. It is not clear, however, how

the process or the resulting outcomes would have been different if the two decisionmaking streams had been combined.

Relocating to Fort Jackson was a positive experience for DoDPI in many respects. Fort Jackson provides an ample supply of soldiers in basic training who can be used as participants in DoDPI's student laboratory exercises. DoDPI has also been able to establish solid relationships at its new host base. Despite initial difficulties getting support for DoDPI's mission at Fort Jackson (most importantly in gaining access to basic troops, but also in terms of other support services such as building maintenance), DoDPI now has good relations with Fort Jackson's current commanding general. DoDPI leaders have met with all of the local commanders and given them tours of the facility. In an act of good faith, when it can, DoDPI offers any available space it has to other entities on the base. The Institute also has good relationships with a research center at the University of South Carolina and with the National Advocacy Center (NAC). The NAC supplies instructors to DoDPI and also provides classroom space when DoDPI needs it.

In other ways, the new site was less beneficial. Although the Institute received BRAC funds for the construction of a new building, the funds available for construction were not sufficient to support all of the features desired by faculty and other staff, and DSS was not in a position to supplement BRAC funds. In addition, many faculty and staff who moved to Fort Jackson experienced economic hardships due to a higher cost of living and relocation-related expenses resulting from delays.

The effects of relocation on DoDPI from a human resource perspective were also mixed. Because some staff members decided not to relocate, the Institute had the opportunity to hire new employees. Thus, although DoDPI lost institutional knowledge and experienced some challenges in hiring replacements in the short run, in the long run it was able to make beneficial changes to the composition of its staff.

Many key decisions about DoDPI's relocation were outside the Institute's control. The decision to close Fort McClellan was discussed for several years and over three rounds of BRAC before the base was added to the 1995 BRAC list. Although many DoDPI leaders antici-

pated that the Institute would have to move, they had no control over the timing of that decision. Not only did it take three rounds of BRAC for the decision on closure to be made, but the Institute's subsequent move to Fort Jackson was also delayed, which caused or exacerbated problems for staff who were trying to time and manage relocation on an individual level.

DoDPI leadership did exercise some influence over where the Institute should be relocated, although it is unclear exactly how so. As noted in the Introduction, under BRAC rules, an institution's leaders do not play a formal role in deciding where an institution will go after base closure. DoDPI leaders must have been allowed or invited into the decisionmaking process by the institution's sponsors. While many of the other facilities that had been located at Fort McClellan moved to Fort Leonard Wood, DoDPI's leaders carefully identified the most important needs in a host base and selected Fort Jackson as best able to meet those needs. This choice was critical to maintaining both the quality and efficiency of DoDPI's instruction and research activities.

Mixed views were expressed on the effectiveness of the change process itself. While efforts were made to involve relevant stakeholders, some faculty and staff felt that they were not as involved as they should have been in key decisions. This issue was especially important in regard to the design of DoDPI's new facility at Fort Jackson. Staff felt that some of the building's problems could have been avoided if they had provided more input, particularly during the design phase of the process. Other problems in the relocation process resulted from delays. These problems particularly affected individuals seeking to coordinate the impending move with home sales and purchases.

On this last point, it is worth noting that change, even when anticipated, can take a longer and bumpier path than expected, making it difficult for those responding to the change to plan effectively—even in the best of circumstances. DoDPI made many efforts to ensure that the quality of its programs was maintained through the relocation—by selecting a new site carefully, designing a new facility, and communicating with stakeholders. But the effects of circumstances at the fringes of the institution's control, such as limited funds and delays, were ultimately difficult to escape.

Defense Language Institute Foreign Language Center

In contrast to the first two institutions discussed in this report, the Defense Language Institute Foreign Language Center (DLIFLC) at the Presidio of Monterey (PoM) did not relocate. Relocation was a distinct possibility, however, first after the Army recommended closure of the institution's original host base, Fort Ord, in the 1991 BRAC round, and especially after the PoM was added to the BRAC list in 1993. However, due to the involvement of the City of Monterey and many other stakeholders, including senators and other members of Congress, the PoM has remained open and DLIFLC has remained in Monterey. DLIFLC's experiences with the BRAC process led to important changes in operations despite no physical relocation.

DLIFLC provides language training to all of the military services, serving approximately 3,000 students annually (about 1,500 from the Army, 700 from the Air Force, more than 500 from the Navy, and 300 from the Marine Corps). DLIFLC employs approximately 1,300 civilians, including 800 faculty, 200 of whom have Ph.D.s. Each year, DLIFLC offers courses in roughly 25 languages.

DLIFLC's experience sheds light on formal and informal decisionmaking in the context of BRAC. The institution itself—like any institution whose host base is recommended for closure—was formally prohibited from participating in the BRAC process after the Army's recommendations were made. But the institution's informal involvement, as well as the strong ties it had built with the City of Monterey, allowed the institution to remain in its longtime location, as its local leaders, faculty, and staff preferred.

Current Governance

OUSD(I), which recently replaced OASD(C3I), is the policy and functional sponsor for DLIFLC. The Department of the Army, as the executive agent for DLIFLC, is the Center's command and resource sponsor (see Figure 4.1). Training and Doctrine Command (TRADOC) is the Army Major Command that oversees DLIFLC directly. However, DLIFLC hosts students from all of the military services as well as other federal agencies, so many entities internal and external to DoD have an interest in DLIFLC's activities. In particular, USD(I), as the functional sponsor for Intelligence, can indirectly influence DLIFLC by changing policies and regulations that affect DLIFLC's customers. In addition, agencies such as the National Security Agency can influence DLIFLC by funding special projects to be carried out by the language school.

Figure 4.1
Defense Language Institute Foreign Language Center External Governance
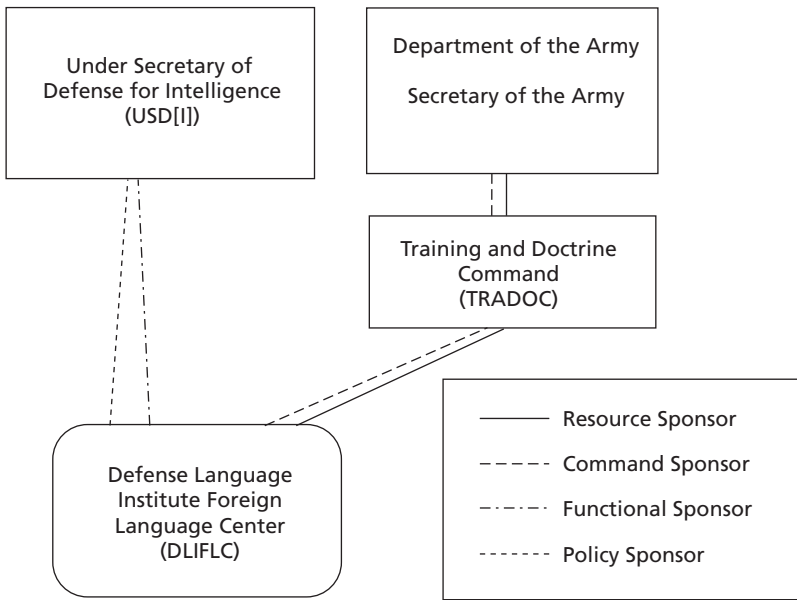
Decisionmaking About the Potential Relocation of the Defense Language Institute Foreign Language Center

Base Realignment and Closure Decisionmaking in 1991

DLIFLC might have been subject to relocation in 1991, when its host base, Fort Ord, was put on the 1991 base closure list. But surprisingly, the PoM (a subinstallation of Fort Ord) and DLIFLC were ignored. Fort Ord was not officially closed until September 30, 1994 (although land distribution and clean up continue today). As the Fort Ord closure process unfolded, it became clear that the 1993 BRAC round would generate questions about the viability of the PoM and DLIFLC.

After Fort Ord closed, the Presidio of Monterey created its own garrison, meaning that it had to support its own infrastructure. Fort Ord's closure resulted in increased DLIFLC and PoM staff costs, because senior civilian staff from Fort Ord replaced more junior staff at DLIFLC and PoM.[1] One person interviewed estimated that PoM absorbed 300 people who had lost their positions because of the closure of Fort Ord. Through several DoD personnel programs (Transfer of Function Rules, Priority Placement Program, Expanded Voluntary Separate Incentive Program), staff from Fort Ord were hired by DLIFLC to perform functions that previously had been provided by more junior employees at DLIFLC. Fort Ord's closure also affected the housing situation at DLIFLC; over 1,000 DLIFLC students had been housed at Fort Ord.

Base Realignment and Closure Decisionmaking in 1993

The possibility of DLIFLC's relocation reemerged in 1993, when the Army recommended the PoM for closure. The 1993 recommendation set off a complex debate about DLIFLC's future. Some key participants on both sides of the debate, including the City of Monterey and the University of Arizona, had no formal role in the decisionmaking

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[1] Robbert, Gates, and Elliott (1997) describe civil service employee bumping and retreating rights that led to this outcome.

process. However, they provided important input to those with decisionmaking power.

The Army's Recommendation. DLIFLC staff and faculty first became aware of the Army's interest in relocating DLIFLC in February 1993, when a local Monterey newspaper printed an article stating that the Army and Navy were considering closing both DLIFLC and the Naval Postgraduate School (NPS).[2] The Army proposed that headquarters for DLIFLC move to Fort Huachuca, Arizona, and foreign language training be outsourced to the University of Arizona South.[3]

The main arguments for moving language training to Fort Huachuca centered on the Army's interest in eliminating single-purpose installations and avoiding the high cost of operating in Monterey. Closing the PoM and moving DLIFLC to Fort Huachuca served both aims. Fort Huachuca was a multipurpose installation with excess capacity, and, according to the Army, relocation of DLIFLC to Fort Huachuca would have allowed it to consolidate its military human intelligence training (including language instruction). Furthermore, Fort Huachuca is a border post in a relatively isolated area with a low cost of living (Sierra Vista, Arizona), as opposed to Monterey, where the cost of living and operating an institution is much higher. Representatives from Fort Huachuca and Sierra Vista were supportive of the proposed relocation.

Opposition to the Army's Recommendation. The Army's decision to include the PoM on its BRAC recommendation list was supported with analysis using the Cost of Base Realignment (COBRA)[4] model to determine the cost efficacy of the proposed relocation. Representatives from DLIFLC and the City of Monterey questioned some of the assumptions underlying the Army's analysis. The City of Monterey submitted a request under the Freedom of Information Act to acquire the COBRA analyses, and Monterey staff then reran the COBRA model using a different set of assumptions. For example, while the Army assumed that all DLIFLC employees would relocate without cost to the

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[2] "Monterey Fights Closures" (1993).

[3] The Navy, on the other hand, never recommended closure of NPS.

[4] The COBRA model is used to estimate costs associated with BRAC relocations.

government on a Friday and teach in Arizona on a Monday, a DLIFLC faculty union member survey found that 50 percent would retire rather than move to Arizona.[5] Some representatives of DLIFLC also suggested that no costs for curriculum development were included in the models run by the Army's Training and Doctrine Command (TRADOC). In addition, the Army's proposal to relocate to Fort Huachuca said that the University of Arizona would build a one-million-square-foot facility in Sierra Vista for free, although the university never officially agreed to do so. Also in dispute was the Army's claim that moving foreign language training would enable it to consolidate intelligence training. A small percentage of DLIFLC's students from the Army go on to intelligence training, whereas 70 to 80 percent of all of DLIFLC's students (cutting across the services) go on to Goodfellow AFB for training in cryptology and related fields.

The City of Monterey, which was concerned about losing DLIFLC and the economic and cultural benefits associated with it, assumed an active role in fighting the move,[6] presenting a number of arguments in support of its position. As noted earlier, the City of Monterey disputed many of the assumptions the Army had used in evaluating the benefits of a move to Fort Huachuca, including the cost of obtaining a new facility and the ease with which faculty might move to Arizona and into their new positions. But most of the City's arguments focused on the quality of instruction possible in Monterey. The City believed that DLIFLC would likely lose a substantial portion of its faculty were it to make the move to Arizona. In addition, DLIFLC had traditionally been able to recruit new faculty[7] from among the diverse population in the San Francisco Bay area. This strong faculty pool would be lost with the proposed move, as would the opportunities available in the area for students to take field trips to nearby cities (such as Fremont, California, which has a large Afghani population) to practice their language skills.

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[5] "Best Serving the DLI Mission" (1993); DLIFLC Provost's School Staff Meeting (1993).

[6] For example: "Monterey Fights Closures" (1993); "Monterey OKs $200,000 to fight closures" (1993).

[7] Approximately 69 percent (personal communication).

The City of Monterey also argued that DLIFLC's location offered opportunities for relationships with other institutions that would not be found elsewhere. It particularly emphasized the synergy between DLIFLC, the Monterey Institute of International Studies (MIIS), and other local higher education institutions that enabled those institutions to advance national interests by providing links between foreign language, international studies, and air and oceanic studies.

Critics of relocation expressed concerns that the BRAC process was driven by cost-effectiveness considerations alone and that not enough attention was paid to the potential effects of a move on the quality of language instruction. While some in favor of relocation claimed that much language training could be outsourced, DLIFLC advocates argued that the curricula used at DLIFLC could not be purchased "off the shelf." DLIFLC has long maintained that its methods for teaching languages are different from those used by universities; the pace at DLIFLC is much faster and more intense. Furthermore, universities tend not to teach unusual languages of the sort taught at DLIFLC.

In March 1993, then–Secretary of Defense Les Aspin took the Presidio of Monterey off the closure list. According to staff at DLIFLC, in defending his choice to go against the Army's recommendation, Secretary Aspin implied that the reasons behind his decision were classified. Aspin's implication, given DLIFLC does not do classified work, prompted the BRAC Commission to revisit the issue, as it wanted to ensure that the Secretary's decision had not been politically motivated. Ultimately the BRAC Commission decided that, although operating DLIFLC in Monterey is expensive, the quality of foreign language instruction would suffer if it were moved. Though it is not possible to predict the magnitude of the disruption that would result from relocation, BRAC Commissioners voted on June 24, 1993, to retain the Presidio of Monterey while also encouraging the PoM to reduce costs, reasoning that the likely disruption to foreign language instruction was not justified by the anticipated cost savings.

The City of Monterey's Role in Decisionmaking. In part because DLIFLC was prohibited from participating in the BRAC process after the Army recommendation was made, the City of Monterey played a prominent role in the decisionmaking process surrounding the pro-

posed move. City staff were able to extend their influence by contacting many high-level stakeholders to discuss the proposed relocation of DLIFLC. They met with BRAC commissioners and their staff, legislators, and members of the Office of the Assistant Secretary of Defense Command, Control, Communications, and Intelligence (OASD[C3I], DLIFLC's functional sponsor at the time) and the General Accounting Office (GAO). The City, in its representative's own words, "milked" any connections that people in the community had with BRAC Commission members. The effects of these efforts were apparent. Three BRAC Commissioners visited DLIFLC, and ultimately the Commission agreed that DLIFLC should not be moved. Monterey also took out an advertisement in *Roll Call,* a prominent source of news for Congressional personnel, and used other strategies to gain the support of legislators. The City spent about $250,000 in cash outlay, and also diverted much staff time towards opposing the relocation. The City Council and the Monterey community in general reportedly were very supportive of efforts to keep DLIFLC and the PoM in Monterey.

   The Role of the Office of the Assistant Secretary of Defense (C3I) in Decisionmaking. As DLIFLC's functional sponsor, OASD(C3I) also had a role in decisionmaking about the institution. During the BRAC decisionmaking process, staff from OASD(C3I) advised Secretary of Defense Aspin to take PoM off of the closure list and briefed members of the BRAC Commission. In addition, a taskforce was formed at the direction of the Secretary of Defense, which included members from DLIFLC's customer agencies. The taskforce collected data, reran the COBRA model and concluded that it would not be significantly less expensive to run the Institute out of Fort Huachuca than out of the Presidio of Monterey. At the same time, the City of Monterey had convened a group to review the proposal, and it supported the work of the taskforce by collaborating and providing relevant data.

Events Since 1993

The 1993 decision to retain the PoM and DLIFLC in Monterey was not the end of the story. In 1994, the University of Arizona put forth an unsolicited proposal to run DLIFLC. The university argued that DLIFLC does not educate people well and offered to run the center

for $45 million per year.[8] After TRADOC rejected the first offer, the university submitted a cheaper bid in 1997, which was also rejected. TRADOC's position has been that any such relocation needs to occur in the context of BRAC. Also, legally, if more than 300 DoD employees are moved, Congress must be notified of the move and be given an opportunity to object.[9] Given the debate surrounding the initial BRAC-related proposal to move, it was unlikely that Congress would provide the approval required for this follow-up proposal.

Other major alternatives to DLIFLC's current arrangement have also been proposed, including a move to Goodfellow AFB and a move to Utah. Goodfellow AFB (in San Angelo, Texas) wants DLIFLC because, as noted earlier, many DLIFLC graduates go to Goodfellow for three or four months for additional training. It was suggested that Goodfellow would like to increase the number of institutions it supports as possible protection against closure. Some observers believe that Goodfellow—the only Air Force Base without an active runway (although it can take helicopters)—might be considered in future BRAC rounds. In 1994, a proposal was submitted to move DLIFLC to Utah so that it could draw on the language support base associated with Brigham Young University and the Church of Latter Day Saints's "Missionary Training Center" (MTC). The MTC teaches between 3,000 and 5,000 students at any given time[10] with roughly 1,000 instructors. However, the Utah proposal was made too late for the 1993 BRAC round. And although MTC and DLIFLC trade techniques and personnel, it is not clear whether the two organizations would be able to operate together effectively. Utah is not as ethnically diverse as the San Francisco Bay area and recruiting faculty for languages not already taught at the MTC might therefore be more difficult from that location.

A timeline outlining significant events in DLIFLC's history is shown in Table 4.1.

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[8] DLIFLC's annual budget is approximately $79 million.

[9] Under the 1978 Military Construction Authorization Act, Congressional notification is required prior to the closure of any military installation at which at least 300 civilian personnel are employed and prior to any realignment involving at least 1,000 civilians or more than 50 percent of an installation's civilian personnel.

[10] Potential Mormon missionaries attend training sessions up to 10 weeks long before departing on 18-month missions.

Table 4.1
**Key Events in the History of the Defense Language Institute Foreign
Language Center with Base Realignment and Closure**

1991	Fort Ord is slated for closure in the 1991 BRAC round. During the course of closing Fort Ord, which occurred in late 1993 and early 1994, former Fort Ord staff moved to PoM, as did BASOPS and other activities formerly managed by Fort Ord.
February 11, 1993	A newspaper article in Monterey states that PoM and NPS are being considered for closure by the Army and Navy.
February 1993	Monterey hires a consulting firm to oppose relocation of DLIFLC.
March 11, 1993	Then-Secretary of Defense Les Aspin announces that PoM will not be on the closure list (reversing Army proposal).
March 22, 1993	BRAC Commission announces plan to reconsider including PoM on BRAC list.
April 1993	DLIFLC faculty union files a formal grievance against contracting out language instruction.
April 1993	Taskforce is formed by ASD(C3I).
April and May 1993	BRAC Commission Chair and Commission members, defense officials, and politicians visit DLIFLC.
June 24, 1993	BRAC Commission votes to retain the PoM but encourages Army to cut costs.

Outcomes of the Defense Language Institute Foreign Language Center's 1991 Base Realignment and Closure Experience

The 1991 BRAC process resulted in some changes in DLIFLC's staff composition, but not much else changed about the institution. Table 4.2 presents a summary of the changes that occurred following the closure of Fort Ord.

Mission and Governance

DLIFLC's mission and governance structure did not change as a result of Fort Ord closing.

Table 4.2
Summary of Outcomes of the Defense Language Institute Foreign Language Center's 1991 Base Realignment and Closure Experience

What changed as a result of DLIFLC's 1991 BRAC experience?	
Mission	No
Governance	No
Budget	Yes
Facilities	Yes
Operations	Yes
Faculty and staff	Yes
Students	No
Curriculum	No

Budget

As a result of the creation of DLIFLC's own garrison, the budget increased significantly. From fiscal year 1994 to fiscal year 1995, total funding for DLIFLC and PoM increased from about $53 million to just under $98 million, reflecting the change from one funding category (Mission) to two (Mission and Base Operations).

Facilities

When Fort Ord closed, DLIFLC assumed maintenance responsibilities for some of the housing at Fort Ord.

Operations

As noted above, the Presidio of Monterey became its own garrison after Fort Ord closed, which meant that it had to support its own infrastructure.

Faculty and Staff

For DLIFLC, the closure of Fort Ord had the greatest impact on staffing. While faculty composition did not change, the administrative and support staff composition did change. According to one estimate, DLIFLC absorbed 300 people who had lost their positions at Fort Ord.

Students and Curriculum

The closure did not affect DLIFLC's student body or its curriculum.

Outcomes of the Defense Language Institute Foreign Language Center's 1993 Base Realignment and Closure Experience

Because DLIFLC ultimately did not move, there were few overt changes in the infrastructure of the school. The 1993 BRAC round did produce some changes in the institution's operations, particularly those involving the City of Monterey. Table 4.3 provides a snapshot of the changes that occurred following the Army recommendation to close the Presidio of Monterey in 1993.

Table 4.3
Summary of Outcomes of the Defense Language Institute Foreign Language Center's 1993 Base Realignment and Closure Experience

What changed as a result of DLIFLC's 1993 BRAC experience?	
Mission	No
Governance	No
Budget	No
Facilities	No
Operations	Yes
Faculty and staff	Some—activities but not composition
Students	No
Curriculum	No

Mission, Governance, and Budget

DLIFLC's mission and governance structure did not change as a result of the 1993 proposal to close PoM and relocate DLIFLC. However, when the BRAC Commission took PoM off the BRAC list, it recommended that PoM lower its costs. So while DLIFLC's funding level did not officially change, it has been able to reduce its costs through agreements with the City of Monterey that are described below.

Facilities

The proposal to relocate the institution did not lead to any changes in DLIFLC's facilities.

Operations

As a result of the ongoing interest in moving DLIFLC, the City of Monterey passed the One Installation plan in 1995 to establish a single department of public works (DPW) to serve the city and the PoM. However, the Federal Acquisition Regulations (FAR) posed a barrier to arrangements between DLIFLC and the City in that they limit non-competitive agreements between military and civilian governmental entities. In response, Congressman Sam Farr introduced a special demonstration project—akin to an Inter-service Support Agreement—in the 1996 Defense Authorization Act to allow installations to contract with local governments. Since then, DLIFLC has entered into a number of other arrangements with the City as well. The City provides street maintenance, utilities, and building management to DLIFLC for about $4 million per year. DLIFLC reports that Army auditors calculated savings from this partnership that reduce what the Army would have spent for the same level of services by 41 percent. The current Monterey-PoM arrangement is still legislatively a demonstration project, but City officials are trying to institutionalize the authority. The City leases part of the Presidio of Monterey from the Army, and it manages the Presidio at no cost in return for civilian access. These arrangements have led to cost avoidance for the Army.

Faculty and Staff

While the composition of the staff has not changed as a result of the proposed relocation in 1993, the way some staff members spend their time has changed. Staff members now devote time to tracking and responding to new relocation proposals.

Students and Curriculum

The composition of DLIFLC's student body was not affected by the proposed relocation in 1993, nor was its curriculum.

Discussion

By remaining in its location at the Presidio of Monterey, DLIFLC was able to carry on its operations in much the same way as it had long

done. Although DLIFLC administrators, faculty, and staff are satisfied with the outcomes of the 1991 and 1993 BRAC processes, the decision to remain after a base closure is not an easy choice, nor one that would be an option for many institutions. DLIFLC was in a unique position, because it was the major tenant of a subinstallation (PoM) that was not slated for closure at the same time as its parent installation (Fort Ord). For DLIFLC, some of the key issues favoring its interest in remaining in Monterey were the quality of faculty and staff (many of whom would not relocate), the potential to attract new faculty and staff, a style of instruction they consider to be unique, and the opportunities for synergies both with neighboring institutions and within the larger metropolitan area.

DLIFLC's success as essentially a stand-alone institution was facilitated by the fact that the institution did not need many resources of the sort that might be available only in a large installation setting (e.g., a training range or landing strip). Upon closure of Fort Ord, PoM and DLIFLC absorbed the additional personnel and responsibilities needed to keep the site operating. The institution's ability to survive on its own was assisted by its relationship with the City of Monterey. The City not only served as the school's advocate during the attempts at relocation, but has since continued to build upon and strengthen its relationship with the institution.

Because DLIFLC did not relocate, it did not experience many of the kinds of outcomes that can result from infrastructure change. However, the institution's efforts to resist relocation affected DLIFLC and its surrounding community in numerous other ways. Specifically, the continued interest in relocation has led the school and community to build stronger ties with one another to demonstrate that the synergy between these various entities is an important reason to keep DLIFLC in Monterey. Congressman Farr has been instrumental in creating the Monterey Regional Education Initiative. This effort formalizes the partnership between the Naval Postgraduate School, the Monterey Institute of International Studies, California State University at Monterey Bay, the Navy Fleet Numerical Oceanographic Center, and the Defense Language Institute Foreign Language Center. These institutions hold conferences and embark on other initiatives together. Nev-

ertheless, the long-term outlook for DLIFLC is unclear. DLIFLC and the City believe that the PoM might still be a focus of future rounds of BRAC. To remain in Monterey, DLIFLC must continue to demonstrate that its mission is critical, its education is of high quality, and its costs are reasonable.

Despite the apparent effectiveness of the City of Monterey and the OASD(C3I) in raising awareness about the institution's situation, these stakeholders had no formal means of determining the final outcome of the BRAC process. In fact, only the Army, the Secretary of Defense, and the BRAC Commission (and Congress and the President in case they chose to block a decision) had formal roles in the process. The Army, as the owner of the PoM, was charged with making a closure recommendation to the Secretary of Defense. As the executive agent of DLIFLC, the Secretary of the Army also was responsible for finding a new location for DLIFLC. In those two roles, the Army was not formally required to consult DLIFLC or the institution's other sponsors. Only through informal means were DLIFLC and its other stakeholders able to affect the outcome of the process. The actual decision not to relocate the school was made at the highest levels of the DoD, when Secretary of Defense Aspin removed the PoM from the 1993 BRAC closure list and the BRAC Commission concurred with Secretary Aspin's decision.

DLIFLC's experience points to notable potential for a bias in BRAC decisionmaking as it relates to educational institutions that are tenants of military installations. As mentioned in the Introduction, executive agents are responsible for coordinating with the host installation to determine an appropriate location for tenants that will be displaced by base closure. In fact, executive agents for education and training institutions usually represent the institution's resource sponsors—as is the case for DLIFLC. This arrangement creates a situation in which the organization that controls funding—and is probably therefore most concerned with efficiency—makes formal decisions about an institution's fate. Furthermore, the resource sponsor is not obligated to engage institutional leadership or other stakeholders in the decisionmaking process. One might argue that the exclusion of the functional sponsor, in particular, poses potential problems. Because of

its role with respect to the institution, the functional sponsor would likely give more weight to issues of quality than would a resource sponsor. And in DLIFLC's case, concerns about quality were what convinced the BRAC Commission to vote against closing the PoM and relocating DLIFLC.

It is DLIFLC's split sponsorship that highlights the potential bias in the BRAC decisionmaking process outlined above. DLIFLC's resource sponsor and functional sponsor are separate organizations. Some ET&D institutions on military installations are similarly governed, whereas others are governed under unified sponsorship—like the two cases discussed earlier in this report. In cases of unified sponsorship, the decisionmaking process is less likely to exhibit a bias toward efficiency, because one organization acts as both resource and functional sponsor and therefore presumably considers effects of decisions on quality and efficiency in concert.

National Geospatial Intelligence College

Our final case study presents an experience somewhat different from those discussed in the previous three chapters in that it involves neither an actual nor proposed change in infrastructure. However, the National Geospatial Intelligence College (NGC), formerly the National Imagery and Mapping College (NIMA College), is an interesting case for this discussion because it illustrates what can happen when an institution experiences significant governance changes without corresponding infrastructure changes. NGC currently maintains four separate campuses at Bethesda, Maryland; St. Louis, Missouri; Washington Navy Yard (District of Columbia); and Fort Belvoir, Virginia.

NGC offers training to geospatial and imagery analysts in the military services, the DoD civilian workforce, and the intelligence community; however, it primarily serves civilian students employed by the National Geospatial-Intelligence Agency (NGA), formerly the National Imagery and Mapping Agency (NIMA). The NGC faculty, which is half military and half civilian, teaches courses in imagery and geospatial analysis as well as leadership.

NGC was the ultimate product of a 1996 merger of three training entities: the Defense Mapping School (DMS), the CIA's training facility at the National Photographic Interpretation Center (NPIC), and the Central Training Facility for Tasking Requirements Management from the Central Imagery Office (all of which at that time were merged and renamed NIMA College). In 2002, NIMA College changed its name to the National Geospatial Intelligence College (NGC), and the college was restructured again to better consolidate the imagery and geospatial training offered. NGC now consists of two parts: the School

of Leadership and Professional Studies, and the National Geospatial Intelligence School. Throughout these changes, the college has continued to operate at four different sites, and there has been some, but not much, progress made in representing all components of the college's mission at each location. The evolution of the college from 1996 to 2002 is summarized in Figure 5.1.

Figure 5.1
Evolution of the National Geospatial Intelligence College
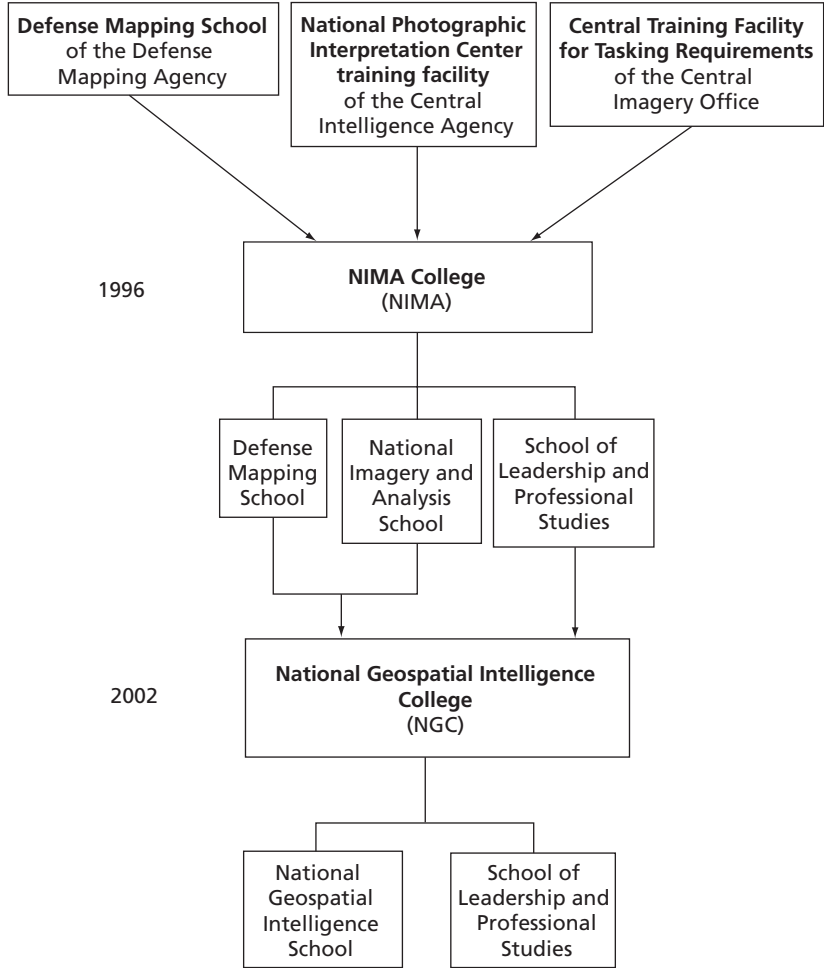
Current Governance

NGC is run by NGA's Training and Doctrine Directorate. The college uses a corporate university model and approach to the provision of training and is working to align the education services it provides with NGA's strategic plan, agency vision, and mission. It has examined corporate universities such as one operated by General Electric and has participated in benchmarking activities with Motorola University, Southwest Airlines's "University of the People," and MGM's "University of Oz." The organizational structures of the Training and Doctrine Directorate and NGC are shown in Figure 5.2.

Figure 5.2
National Geospatial Intelligence College External and Internal Governance
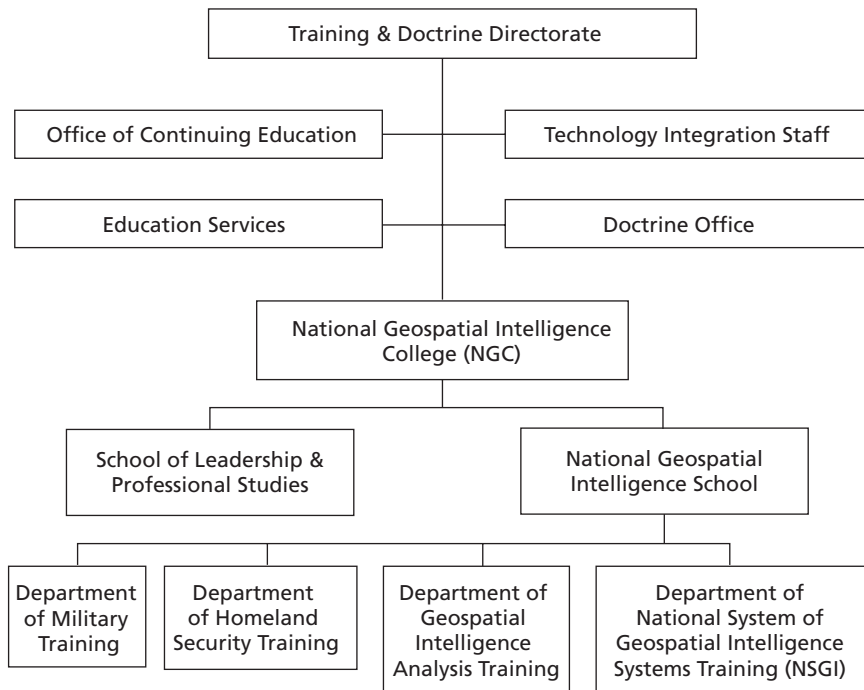
The Decision to Merge Imagery and Mapping Organizations

We describe NGC's evolution in two parts. The first part describes the events that led to the creation of NIMA as well as NGC's predecessor, NIMA College, and the second focuses on changes that led to the development of what is now called NGC.

The Creation of the National Imagery and Mapping Agency

The creation of NIMA in 1996 proved to be one of the most fundamental changes in the intelligence community since the National Security Act of 1947. It was a merger that integrated a number of organizations with missions that were traditionally considered to be disparate. The establishment of NIMA came after several years of debate within the intelligence community about how to address redundant agency responsibilities and improve efficiency. Many believed one of the most effective solutions was to combine imagery and mapping activities under one central authority.[1]

The impetus for NIMA's creation came from John Deutch's testimony during the April 1995 hearings before the Senate Intelligence Committee to confirm him as Director of Central Intelligence. Deutch proposed the establishment of a new agency to oversee mapping and imagery activities. He argued that imagery intelligence needed to be more centrally organized and funded, in a way similar to the National Security Agency, which focuses on signals intelligence.

Deutch represented the view of some in the intelligence community that imagery intelligence and mapmaking could complement one another. As time and technology have evolved, the wisdom of this view has become more and more apparent, according to an NGC representative. It is not an entirely new notion, as some of the earliest reconnaissance came from mapping technologies used by cartographers.

Deutch's testimony prompted the formation of a steering group led by Deputy Secretary of Defense John White, Chairman of the Joint Chiefs of Staff General John Shalikashvili, the Director of Central In-

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[1] Joint Military Intelligence College (April 2001).

telligence Deutch, and his deputy, Nora Slatkin, as well as the military service intelligence chiefs. Consulting with key stakeholders, they looked at which entities should be part of the new organization, how the new agency should be funded, and what its mission should be. They launched a 60-day study of these issues in August 1995 and recommended the creation of the National Imagery and Mapping Agency. The new agency would include what had been the Defense Mapping Agency, the Central Imagery Office, the CIA's National Photographic Interpretation Center, the CIA's other imagery-related elements and programs, the Defense Intelligence Agency's Photographic Interpretation Section, the Defense Airborne Reconnaissance Office, the Defense Dissemination Program Office, and the National Reconnaissance Office.[2]

National Imagery and Mapping Agency Governance. As a combat support agency as well as a member of the intelligence community, NIMA was put under the governance of both the Office of the Secretary of Defense and the Director of Central Intelligence (DCI). The DCI, through the Community Management Staff, became a functional sponsor for NIMA, providing strategic direction for the agency and its workforce training, as well as funding through the National Foreign Intelligence Program.

As with the Defense Intelligence Agency and the National Security Agency, the director of NIMA reported to the Secretary of Defense through the Office of the Assistant Secretary of Defense for Command, Control, Communication, and Intelligence (OASD[C3I]) for policy and programming issues. NIMA received part of its funding from the Joint Military Intelligence Program (JMIP) through OASD(C3I). OASD(C3I) also served as a policy sponsor and functional sponsor and provided administrative guidance on policies for workforce and training programs. NIMA's sponsorship structure through 2002 is depicted in Figure 5.3.

In 2002, NIMA was restructured to more closely join the fields of imagery and mapping to take advantage of the benefits the merged capabilities offer. In the years since its inception, NIMA was moving away from traditional mapmaking and imagery analysis and merging the two

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[2] Ibid.

Figure 5.3
National Imagery and Mapping Agency External Governance Through 2002
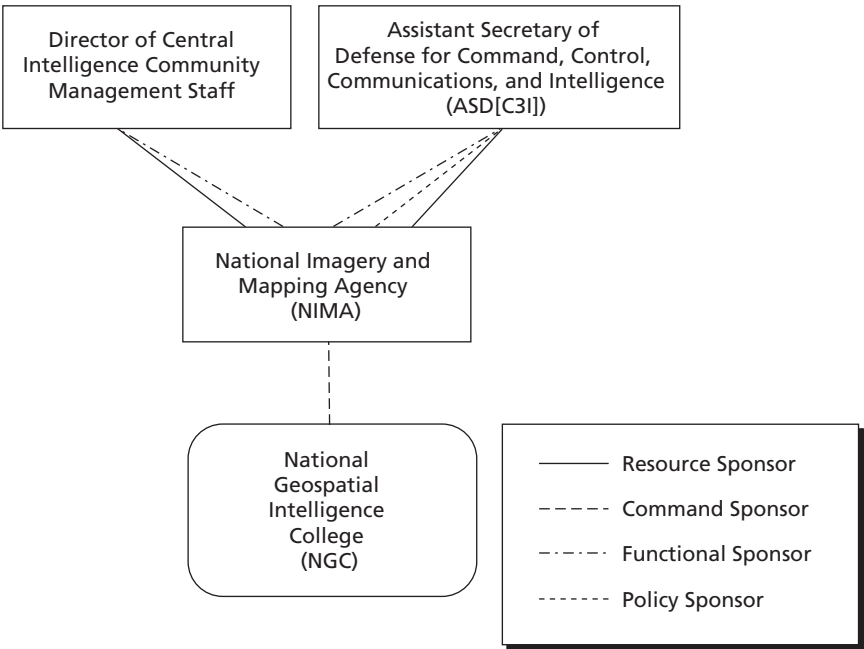
into what it calls "geospatial intelligence analysis." In September 2001, the new director of NIMA, retired Air Force general James R. Clapper, began developing a strategic intent document that included ten priorities for the agency. One of the priorities was to transform NIMA College into the National Geospatial Intelligence College (NGC). Clapper believed that a reorganized institution with an emphasis on training could successfully transform the workforce into geospatial intelligence analysts.

The Development of the National Imagery and Mapping College and the National Geospatial Intelligence College

The merger that created NIMA was affected by input from all customers, including the CIA, the Chairman of the Joint Chiefs of Staff representing the unified commands, and all the service intelligence chiefs. These customers also provided input into the establishment of NIMA College.

At the time of NIMA's creation, stakeholders were especially concerned about where money would be redirected and about the level and quality of customer support, namely, training. The CIA in particular was concerned that if its National Photographic Interpretation Center (NPIC) became part of DoD, the new school would no longer be responsive to its needs. The Defense Mapping Agency (DMA) resisted becoming a part of NIMA because it did not consider itself an intelligence function, and was concerned that direct support to the military would be lost.

In 1996, NIMA established NIMA College, which brought together the Defense Mapping Agency's Defense Mapping School (DMS), the CIA's training facility at the National Photographic Interpretation Center (NPIC), and the Central Training Facility for Tasking Requirements Management from the Central Imagery Office.[3] At the time of the merger, the college reorganized into three schools: the Defense Mapping School (DMS), the National Imagery and Analysis School (NIAS), and the School of Leadership and Professional Studies (SLPS).

DMS was concerned about its role in the newly established NIMA College. Previously, DMS was a part of DMA but did not train its own employees; instead, it provided mostly military occupational specialty (MOS) training. It was a challenge for DMS to accept a broader mission. NIAS had an easier time with the transition. NIAS was formerly part of the training program at NPIC, and little changed when it became part of NIMA College, other than it began to serve more students. DMS and NIAS were essentially separate entities under NIMA College, serving the two separate mapping and intelligence communities, respectively.

In 2002, NIMA College changed its name to the National Geospatial Intelligence College (NGC) and merged the Defense Mapping School and the National Imagery and Analysis School into the National Geospatial Intelligence School. The newly merged entity and the School of Leadership and Professional Studies together comprise

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[3] National Imagery and Mapping College (2001).

NGC. The college considers itself the steward of the geospatial intelligence analysis future.

The 2002 restructuring and renaming of the school was undertaken through the leadership of NIMA's director, General Clapper (ret.). Representatives from NGC characterize the school's restructuring as aligning mission training with the new mission responsibilities of NIMA. It is also seen as performance enhancement; NGC is creating new products for customers, given changes in the world environment and technology. New products and services need new kinds of training. This most recent restructuring is not explicitly aimed at saving money or making gains in efficiency. Its primary purpose is to increase effectiveness.

The Consolidation Process

The process of consolidating and restructuring the schools has at times been challenging. Budgets represented one problem. In its first year of operation, NIMA College barely functioned because the overall NIMA budget was very small. NIMA made cuts where it could, and the college scaled back its course offerings and focused on its core mission. In its first year, the college did not offer any leadership training or intermediate and advanced courses for NIMA civilians, and it did not invest in any of the facilities. NGC representatives maintain there were no real disruptions to training, but there was no growth for the school, and it could not build the programs it desired. There were no disruptions to military training, however, and school leaders believe that the quality of education did not suffer.

In many respects, the initial merger of the various entities in 1996 did not change many aspects of the way the different organizations within the college carried out instruction. When NIMA was created, an agreement was made among the stakeholders involved that no new buildings would be created for the agency. NIMA College therefore continued to operate on four campuses, all of which were used by the preconsolidation components of the college. When NIMA College was created, its main campus was established at Fort Belvoir, Virginia. The Bethesda, Maryland, and St. Louis, Missouri, sites were a part of the

Defense Mapping School before they became part of NIMA College. The National Imagery and Analysis School and its predecessor, the National Photographic Interpretation Center, had a training facility located at the Washington Navy Yard in the District of Columbia and run by the CIA. NGC also has some classified locations in addition to the four campuses mentioned above.

Customers have said that they like having multiple campuses so they do not always have to go to Fort Belvoir, which can be inconvenient. Customers also prefer to stay in a military base environment because of concerns about security. NGC administrators share their customers' interest in locating all NGC facilities on military bases.

Because the creation of NIMA College joined the various schools administratively but not physically, there were problems with integration. Traditionally, cartographers and imagery analysts had very different skill sets and work styles. Cartographers focused on the production of mapping products, while imagery analysts focused on the interpretation and analysis of data. This is so even though in the military, terrain analysts (equivalent to cartographers) work side by side with imagery analysts and understand the need to bring the two fields together. Nonetheless, faculty at different locations did not mix or communicate often—a situation NGC leadership hopes to improve with the most recent reorganization. Students also experienced difficulties integrating their courses of study because of the separate course offerings and facility locations.

A timeline outlining significant events in NGC's history is shown in Table 5.1.

Table 5.1
Key Events in the Development of the National Geospatial Intelligence College

1996	NIMA and NIMA College are created.
2001	The director of NIMA, General James Clapper (ret.), removes NIMA College from the Human Resources Directorate and creates a new Training and Doctrine Directorate, giving it key component responsibilities.
2002	NIMA College is renamed the National Geospatial Intelligence College (NGC) to reflect its increased emphasis on fusing the mapping and imagery disciplines to develop geospatial intelligence analysts.
2003	NIMA is renamed the National Geospatial-Intelligence Agency (NGA).

Outcomes

NGC has experienced an ongoing series of governance changes since the creation of its predecessor, NIMA College, in 1996. Table 5.2 outlines the outcomes of changes in the governance of imagery and mapping ET&D.

Table 5.2
Summary of Outcomes of the National Geospatial Intelligence College Merger

Mission	Yes
Governance	Yes
Budget	Yes
Facilities	No
Operations	No
Faculty and staff	No
Students	No
Curriculum	Some

Mission

When the school was reorganized into the NGC in 2002, the mission of the school changed to focus on the training of geospatial intelligence analysis for DoD and the intelligence community.

Governance

The first governance change occurred when the DMS and the NIAS were brought under NIMA College. The two schools, along with the School of Leadership, remained largely independent under the umbrella of NIMA College until they were recently merged into the National Geospatial Intelligence College.

When NIMA was reorganized in 2001, NIMA College was taken out of the Human Development Directorate and given key component responsibilities as part of a new Training and Doctrine Directorate. This meant that it was equivalent to the Human Development, Financial Management, and Operations Directorates (see Figure 5.4). This change was significant because it removed the layers that impeded

Figure 5.4
National Imagery and Mapping Agency Internal Governance in 2001

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                        ┌─────────────────────────┐
                        │   Office of the Director │
                        └─────────────────────────┘
                        ┌─────────────────────────┐
                        │     Deputy Director      │
                        └─────────────────────────┘
                        ┌─────────────────────────┐
                        │      Chief of Staff      │
                        └─────────────────────────┘
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| Operations Directorate | Acquisition and Technology Directorate | Financial Management Directorate | Training and Doctrine Directorate |

| Plans and Customer Operations Directorate | Information Services Directorate | Human Development Directorate |
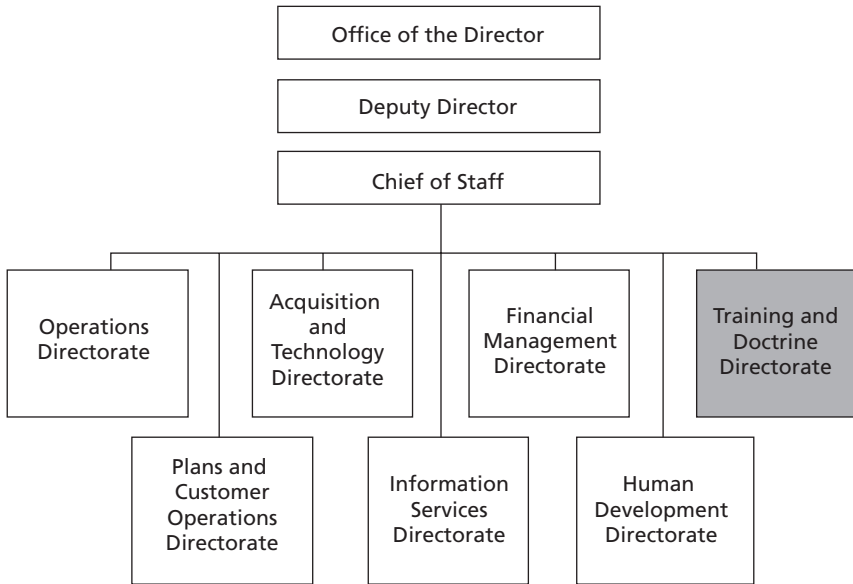
NIMA College's visibility and status when it was under the Human Development Directorate. It gave NGC its own budget and management lines, and greater access to the NIMA director.

Budget

In the first year, NIMA College barely functioned because the overall NIMA budget was very small. NIMA had to make cuts where it could, and it had to focus on its core mission. In subsequent years, the agency's budget increased, and the college's budget is now protected by support from NGA directors who believe training is important. Nevertheless, the college has a number of outsourcing efforts underway.

NGC is expecting to receive more money for intermediate and advanced level training, and it is positioning itself to increase its offerings in those areas. More programs and staff will be required. NGC has asked for civilians from NIMA's Analysis and Production Unit to be on rotation to help with the increase in course offerings.

Facilities

As noted above, NGC continues to operate on four legacy campuses. The college is looking at new location possibilities; it has considered having one campus on the east coast and one in St. Louis, Missouri. In addition, the Director of NGA is considering moving the whole agency to a place like Fort Belvoir. The possibility of relocating the agency and/or the college is being evaluated against customers' stated preference for multiple campuses located on military bases.

Operations

Even after the NIMA merger, separate personnel systems existed for the different parts of the organization. This posed a challenge to the integration of NGC's faculty and staff because it interfered with the notion that they were indeed one organization. To address this, the college is now moving to a common personnel system. In 2002, NIMA was the only intelligence agency that had a pay banding system and performance pay system. NIMA was not a part of the general schedule system, which made it unique among government agencies.

Faculty and Staff

Before the merger, the DMS had about 100 faculty and staff and the NIAS had between 40 and 50 faculty and staff, in addition to a number of contracted instructors. There were no cuts made to the number of faculty from either school, so the faculty and staff size has remained the same. The former NIAS significantly increased the number of contracted instructors over the past few years because of the need for intermediate and advanced courses, and for modernizing courseware from paper to digital for the imagery analysis curriculum.

Mapping and imagery faculty are mostly in separate locations, but NGC is working on integrating them. According to NGC representatives, the school still does not behave in an entirely unified manner. NGC leadership anticipates more communication between different faculty groups in the context of the most recent reorganization.

Students

The schools that merged to form NIMA College continued to serve the same students as they had before, although the number of students served increased. NGC currently trains a small number of foreign nationals, but the school believes this area will grow in the future.

The cartographers and imagery analysts served by NGC have had trouble integrating their skill sets and work styles since the original merger that resulted in the creation of NIMA College. Merging the students' cultures remains a challenge for NGC.

Curriculum

With the establishment of NGC, the curriculum changed to integrate the fields of mapping and imagery. In addition, NGC devotes special attention to courses on leadership and ensures that both professional and support staff at NGA have access to them. Serving both communities is important because there are cultural differences between the support staff and the professional workforce within the agency. NGC sees itself as a change agent for the agency and considers its curriculum a key tool in bringing about such change.

Discussion

NGC experienced a series of governance changes that resulted in the administrative consolidation of several entities that remain in separate geographical locations. These governance changes were not complemented by changes in physical infrastructure. In fact, when NIMA was created in 1996, stakeholders explicitly agreed that no new buildings would be created for the agency, and thus the possibility of physical consolidation was removed from consideration at that time.

The decision not to pursue physical consolidation suited the college's customers and other stakeholders in some ways. Customers tended to prefer the different locations rather than being required to go to one central location, such as Fort Belvoir. The decision not to relocate also meant that some faculty, such as those at NIAS, experienced little change when their school became part of NIMA College. The

school as a whole served more students, but despite NIMA's charter, NIAS and DMS continued to serve two separate communities. Many students of the two schools, with their different skill sets and work styles, were also probably more comfortable keeping things the way they were.

The decisionmaking process surrounding NGC's governance changes, though brought about by high-level leadership, has regularly included input from stakeholders, particularly the school's customers. But NGC's lack of a common location and common culture has made integration difficult. And in some respects, stakeholders have tended to resist change and integration. Many faculty, staff, and students have retained their own separate cultures and work habits. At the time of the initial merger, slow progress was made toward encouraging communication between faculty associated with different components of the school and fostering common staff or curricula.

This situation is changing somewhat under the current leadership of NGA. Faculty specializing in mapping work together with those specializing in imagery to develop a coordinated curriculum, but integration of the two very different cultures remains a challenge. NGA leadership sees this integration as an important focus of the effort to use training as a tool to transform the workforce into geospatial intelligence analysts. Efforts to reshape the college are ongoing, and even the possibility of moving all parts of the school to a central location has been discussed.

It remains to be seen whether the desire—or the budget—for such an action will become a reality. Large-scale infrastructure change is sometimes difficult to achieve outside of BRAC. What is apparent in the case study of NGC is the difficulty of integrating personnel from different educational cultures, particularly when they are located in different geographical areas. The many governance changes experienced by NGC and its predecessor NIMA College are evidence of the ongoing nature of this challenge. Regular communication with and input from stakeholders is key, as it has been in all the cases reviewed here, but is not sufficient in itself to create the kind of integration envisioned when the college was first proposed, particularly if many of the stakeholders remain resistant to at least some aspects of the consolidation.

CHAPTER SIX

Lessons Learned and Recommendations

The case studies we describe in this report offer examples of several scenarios for ET&D institutions faced with potential infrastructure change, including relocation, new facility construction, remaining at a site after the closure of a parent installation, and consolidation of institutions with and without physical consolidation. Our review of the experiences of our case study sites has yielded lessons about each of these scenarios. In this chapter we examine each of these scenarios, identify insights from the case studies, and make recommendations for institutions and their sponsors that might be faced with similar circumstances in the future. In discussing the scenarios we identify strategies used by educational institutions and their stakeholders to influence decisions about infrastructure change. At the end of the chapter, we make additional recommendations for decisionmakers at the system level, who will potentially be involved in decisions regarding all of the scenarios.[1]

Relocation

We studied two sites that underwent relocation, DINFOS and DoDPI, and one for which relocation was proposed, DLIFLC. While the outcomes of the three institutions' experiences can be considered success-

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[1] As noted in the Introduction, the lessons and recommendations presented in this report are based on four examples that may or may not be representative of the experiences of other ET&D institutions. In addition, changes in DoD guidance regarding infrastructure change could affect the extent to which the findings presented here can be generalized to other ET&D institutions in the future.

ful in most respects, each case study offers unique lessons concerning the relocation of education and training institutions. Based on those lessons, we offer the following recommendations to sponsors and leaders of institutions facing relocation.

Ensure that potential effects on both quality and cost-effectiveness are considered in selecting a new location. Decisions about relocation made by entities that assume more than one ET&D sponsorship role are likely to be more balanced, and therefore more easily accepted, than decisions generated by a single sponsor. In the cases we studied where resource sponsors also assumed the roles of functional and policy sponsors, balanced decisions were made about relocation, the institutions and their customers were involved in the decisions, and the decisionmaking process proceeded relatively smoothly. AFIS consulted the heads of DINFOS, DVIS, and DPS about the relocation to Fort Meade. The stakeholders reached agreement on that site, due in part to its proximity to Washington, D.C., and the access that location would provide to a wide variety of media professionals who could serve as faculty or guest lecturers. Likewise, DIS allowed DoDPI leadership to participate in choosing Fort Jackson as the Institute's new location. DoDPI had many good reasons for selecting Fort Jackson, the most important of which was that the site provided an ample pool of soldiers in basic training who could be used as participants in the Institute's student laboratory exercises. DoDPI's relocation to Fort Jackson also led to valuable new collegial relationships that contributed to the broadening of its research mission.

On the other hand, in the case where the resource sponsor did not also fill functional or policy sponsorship roles and did not solicit the involvement of those sponsors or the institution's leadership, the decisionmaking process was controversial and chaotic, and the resource sponsor's recommendation was ultimately rejected. The Army did not consult DLIFLC leadership about a possible move to Fort Huachuca, Arizona, before making its recommendation to the Secretary of Defense in 1993, nor did it consult OASD(C3I). As a result, TRADOC's analysis of the proposed relocation suffered from flawed assumptions and data and a bias toward efficiency coupled with a relative neglect of quality considerations. The resulting backlash nullified TRADOC's recommendation.

If the Army assumed that involving DLIFLC leadership in the decision would invite fierce debate into the process, it was probably correct. But perhaps the process would have been smoother and the recommendation more solid if the Army had involved at least the functional sponsor, OASD(C3I). It is unclear why the Army decided not to do so.

For an institution to achieve its mission, it must function in a location that affords it the tools to do so effectively and at a reasonable cost. Because of their prescribed roles, resource sponsors are more likely to stress cost-effectiveness considerations, whereas functional sponsors are likely to place more emphasis on academic quality in evaluating prospective new sites. To generate a good decision, both emphases should be represented. If an institution's resource sponsor is different from its functional sponsor, the resource sponsor should consult the functional sponsor when considering the relocation of an institution they govern in common. At an appropriate point in the process, institutional leadership and an institution's customers should also be consulted.

Make human resource considerations a top priority. When relocating an educational institution, human resource considerations are of critical significance. Although both DINFOS and DoDPI relocated, only DoDPI lost large portions of its staff. The main reason for the difference in the experiences of the two institutions is arguably that DoDPI's staff was predominantly civilian whereas DINFOS was staffed almost entirely by military personnel. Indeed, even in DINFOS's case, most of the few civilians employed by DINFOS, DVIS, and DPS either never made the move to Fort Meade or moved for one or two years and then returned to their original homes. DoDPI saw its younger staff move, but those who were nearer to retirement opted to stay in Alabama rather than move their families to South Carolina. Some at DoDPI considered the loss of the most experienced two-thirds of researchers and support staff a serious setback. As a result of the staff turnover, DoDPI presumably incurred significant staffing and training costs in addition to the reported delays in filling positions. However, others at the Institute viewed the relocation as an opportunity to make positive changes to staff composition.

Human resource issues are central to every aspect of relocation, from the decision to move, to the selection of a site, to the physical

move and transition to a new location. When deciding whether and where to relocate an educational institution, sponsors should anticipate the numbers of existing faculty and staff that will move with the institution and evaluate the desirability and manageability of the anticipated staffing effect. Data on current staff composition and intentions are useful in predicting staffing effects, and they should be complemented by analyses of staffing and training costs likely to be incurred as a result. In planning for personnel transitions, costs of moving, cost of living in the new location, and related issues should also be considered.

One important strategy to minimize staffing turbulence is to identify as far in advance as possible the individuals who will not be making the move. With such information, an institution can start advertising open positions well in advance, with the aim of filling those positions by the time the institution relocates. The institution should provide existing staff with assistance both before and after the relocation. This assistance can take many forms, including written documentation that explains available benefits (e.g., moving reimbursement), staff retreats, or seminars about the move. Another helpful strategy is to leave some staff in place at the old site even after the new location is operational to provide assistance with the transition.

Inform and involve staff in planning and managing relocation. Decisive leadership and communication with stakeholders make for a smoother relocation experience. Although any relocation can be expected to be disruptive in the short run, effective management of the process can limit disruption of an institution's normal operations and facilitate planned changes. One important element in DINFOS's successful relocation was AFIS's ability to find an effective means of balancing the role of leaders in the relocation process with that of other stakeholders. For example, when AFIS initially tried to coordinate details of DINFOS's curriculum change and relocation by committee, progress was slow. Later, a more efficient approach was adopted whereby leaders were appointed to manage individual parts of the process while keeping other stakeholders informed.

Critical to the relocations of both DINFOS and DoDPI was the ongoing consultation of stakeholders in decisions about how the move should be carried out. AFIS was successful in working with faculty,

staff, and other stakeholders. AFIS, moreover, sought not only to keep stakeholders informed, but actively involved them in structured decisionmaking workshops concerning such issues as curriculum change. The move to Fort Meade was carefully coordinated, with the many steps in the process carefully timed and rehearsed months in advance.

DoDPI also made regular efforts to involve and communicate with stakeholders, and while some stakeholders found these efforts effective, others did not. DoDPI leadership was hampered by delays beyond its control and communication problems that led to stress and economic hardship for some faculty and staff both before and after the move. DoDPI also seems to have experienced more "mix-ups" in the process of relocating than did DINFOS. For example, some DoDPI staff interviewed reported that computer hard disks were switched, resulting in lost records. There were also problems that arose because the facility and furniture were measured differently—the building plans were generated in metric standards whereas the furniture was measured in inches.

On the positive side, DoDPI made clear efforts to anticipate and manage difficulties its staff might encounter in relocating. Examples include briefings to disseminate information about Columbia (especially house hunting and cost of living differences) and the relocation process, as well as an off-site retreat for staff before the relocation that emphasized team building. In addition, a team was sent to Fort Jackson in advance of the move to begin interviewing for support staff and to meet with Fort Jackson personnel to solicit troop involvement. Once in Columbia, staff worked to build relationships at Fort Jackson, by inviting Fort Jackson staff to view their facility and operations, and in the greater Columbia community by developing partnerships with the University of South Carolina and the National Advocacy Center.

Remaining After the Closure of a Parent Installation

Our research included one example of an educational institution that stayed in place after its host installation was closed. Although this situ-

ation is unusual, it is possible that another ET&D institution might find itself in a similar situation during the next round of BRAC. DLI-FLC's experience remaining at the PoM despite the closure of Fort Ord illustrates some of the implications of such a choice for an educational institution. The issues to consider in deciding not to relocate are in many respects just the flip side of the issues involved in the decision to relocate. For that reason, many of the lessons and recommendations presented previously in this chapter are applicable here as well. Involving stakeholders in the decision, considering potential effects on both quality and cost-effectiveness, and anticipating and weighing the importance of changes to faculty and staff composition are of particular relevance. There are still other lessons that are more specific to the choice of remaining in a location after base closure and are the basis for the following recommendations to institutions and their sponsors.

Carefully consider an institution's need for support from a host base. In 1995, proposals were advanced to keep DoDPI at the Fort McClellan site despite the base's impending closure. Such proposals were never seriously considered by DoDPI's leadership, because DoDPI relies heavily on troop support as a source of free volunteers for its student laboratory exercises. Once the base was closed, the Institute would quickly run out of participants for its laboratory exercises and would be unable to afford the high costs of hiring participants from the surrounding community. In contrast, the language instruction provided by DLIFLC did not require many resources of the sort that could be provided only by a large military facility. DLIFLC's situation was also unique because it was already located on a semi-independent subinstallation.

The quality and cost-effectiveness of ET&D institutions depends on both physical infrastructure support and collegial support. Costs incurred by an institution for basic facility support, including public works and student housing, could rise in the absence of a host installation. Collegial relationships with other institutions located on the same base could be weakened or lost as a result of physical separation. Both types of support should be considered in determining whether an institution should remain in a location after its host base closes.

Identify partnerships that can sustain the institution in its current location. It may be possible to forge partnerships that can help an institution manage the costs of operating without the support of a host installation. Several different types of organizations could conceivably be interested in supporting an institution to stay in its original location, including DoD sponsors, other organizations with interests in the same functional area, or local governments that may be willing to provide financial or other assistance to retain the institution.

An institution's relationship with its host community can be a critical factor in determining whether an institution survives in a location after its host base closes. The role of the City of Monterey in supporting DLIFLC cannot be understated. Besides serving as an advocate for DLIFLC to remain in Monterey, the City was willing to satisfy a significant portion of DLIFLC's support needs. Monterey's financial and civic commitment to DLIFLC made it possible for the institution to stay in Monterey even after the closure of Fort Ord. The need for relationships with the external community remains important after the host base has closed. After the decision was made to remove the PoM from the BRAC list, DLIFLC has continued to build on its partnership with the City and other stakeholders. These efforts are seen by DLIFLC as critical in demonstrating the benefits of staying in Monterey should the institution face relocation again in a future round of BRAC or in another context.

New Facility Construction

Two of the institutions we studied designed and occupied new facilities built specifically for them using Army BRAC funds. The BRAC 1995 guidelines stipulated that construction would be sized for the appropriate validated workload and built to current standard. In many cases that resulted in significant enhancements compared to the older facility that had been vacated at the former installation; however, the Army would not overbuild against possible future requirements.[2] Our case studies demonstrate that when new construction is an option, spon-

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[2] DAIM-BO (1995).

sors and institution leaders typically work together on the design of the new facility and the construction process. We thus provide one set of recommendations to both communities.

Look for opportunities presented by the base realignment and closure process. BRAC funds can provide opportunities to fund new construction that might otherwise not be possible. Both DINFOS and DoDPI were able to use BRAC funds for construction of new facilities. DINFOS was able to construct a facility at Fort Meade, and DoDPI built a new facility at Fort Jackson. Construction of those two facilities would have been much less likely outside the BRAC process. BRAC funding is much greater per installation than is funding provided through the regular military construction (MILCON) process.

The availability of BRAC funding was more significant in the case of the DINFOS relocation than it was in DoDPI's case. DoDPI only moved because it was essentially forced to move once Fort McClellan was slated for closure. In contrast, AFIS took positive advantage of BRAC funds tied to the impending closure of the bases on which DINFOS and DVIS resided and used those funds to facilitate physical consolidation of the three schools it sponsored. It is highly unlikely that AFIS would have had the means to build a state-of-the-art consolidated facility outside the context of BRAC. Further, AFIS used BRAC funds efficiently, producing a new consolidated facility that occupied fewer square feet of instructional space than the sum of the space previously occupied by the three component institutions that became DINFOS.

Some ET&D stakeholders might initially react to the closure of an educational institution's host installation as an unwelcome and overwhelmingly negative event, mainly because of the magnitude of the change it usually entails. However, as the case of DINFOS demonstrates, BRAC can be an important opportunity to build a new facility with potentially positive effects on both quality and cost-effectiveness. While most institutions cannot invite themselves into the BRAC process, institutions and their sponsors who anticipate being affected by the process should give serious thought to how they might seize op-

portunities presented by BRAC for the benefit of the institution and its stakeholders.

Involve faculty and staff in designing new facilities. A major goal of new construction is to design a facility that meets the needs of its occupants. One of the best ways to determine those needs is to consult faculty and staff beginning in the earliest phases of the design process. They can provide valuable information about they way they divide their time at work, equipment or building features they currently find useful, and features that they believe would enhance their ability to communicate, collaborate, and otherwise produce high-quality work.

However, even with the right stakeholder input, there is no guarantee that a newly designed building will meet all needs. Whereas DINFOS was able to build a clearly improved facility, for DoDPI, the new building has not been a complete success. Budget, design strategy, and the logistics of large-scale construction were factors that affected the outcomes of the process for both institutions. DINFOS benefited from funds contributed by AFIS in addition to BRAC funding. AFIS solicited input from a range of stakeholders on the design of the new facility and engaged in intense oversight of the construction process.

DoDPI's funding situation was not quite as bright as DINFOS's, in part because it was relocating one institution (as opposed to three in DINFOS's case), and also because DSS was not in a position to provide additional funds for construction as AFIS was. DoDPI therefore could not afford all the features desired by faculty and staff, nor was it able to build in room for growth. However, some members of DoDPI's faculty assert that a few of the shortcomings of the new DoDPI facility could have been avoided had faculty been given the opportunity to provide more input into the design phase. DoDPI also encountered several serious obstacles during the construction process, some of which resulted in shortcomings that could not be overcome. In hindsight, DSS and DoDPI leaders believe that if they had sent a representative to Fort Jackson to oversee construction and had otherwise managed the project more closely, the new DoDPI facility might have been of better quality.

Consolidation of Institutions With and Without Physical Infrastructure Change

Two of our case studies involved the administrative consolidation of ET&D institutions that were governed separately and resided in different geographic locations. Three public affairs and visual information schools were consolidated into the current DINFOS at Fort Meade, and NGC (formerly NIMA College) resulted from the consolidation of educational institutions serving the imagery and mapping communities. A key difference between the two cases is that the DINFOS consolidation included a consolidation of facilities, whereas the NGC consolidation did not. Examination and comparison of the cases of DINFOS and NGC provides interesting lessons about the value of physical consolidation as a complement to administrative and academic consolidation. Those lessons, and resulting recommendations, are presented below.

Take advantage of opportunities to consolidate institutions as a means to eliminate unnecessary redundancy. Over the years, some DoD ET&D institutions and programs have probably developed similar courses in the same functional area. While sometimes course content must be tailored to specific contexts, other times it is general enough to serve the needs of more than one community. By seeking out opportunities to consolidate overlapping curricula in their functional areas, institutions' sponsors can support DoD efforts to improve efficiency. Similarly, physical consolidation of institutions that support the same or overlapping missions can be a means to generate savings over the long term.

Both academic and physical consolidation can lead to significant improvements in efficiency. Together, the three schools that were consolidated into DINFOS offered 52 courses. During the process of academic consolidation, each course was reviewed and similarities between offerings were identified. In the end, those charged with consolidating the institutions' curricula were able to reduce the number of courses to 26 while still attending to the unique needs of each service. Similarly, by consolidating the three schools into a single new facility, DINFOS was able to decrease the instructional space needed from

390,000 square feet to 292,000 square feet. One might suspect that there were also savings associated with operating only one site as opposed to three.

When feasible, complement administrative consolidation with physical consolidation. As we have seen in the case of NGC, the benefits of administrative consolidation can largely be lost if significant efforts are not made to foster collaboration across the groups being consolidated. One clear way to join disparate groups is to collocate them in the same facility. However, if physical consolidation is not an option—whether due to financial, mission-related, or other constraints—there are other steps an institution can take to facilitate administrative and academic coordination, as discussed in the next section.

Collaboration and integration of communities is difficult without physical consolidation. NGC's experience illustrates the difficulty of integrating different communities when those communities remain geographically separate. This is particularly true in cases such as NGC's in which different schools have long-standing differences in terms of culture and work style. Changing such traditions would be a difficult process under any circumstances, but is particularly difficult when physical separation reinforces cultural differences. The drawbacks of a lack of physical consolidation of educational institutions in the case of NGC also carried implications for NIMA. NIMA leaders hoped curriculum consolidation at NIMA College could be a vehicle for broader organizational change; but the physical separation of imagery and mapping faculty was an obstacle to collaboration and curriculum change, and as a result, cultural differences persisted for years after the administrative consolidation was complete, not only at the college, but at the NIMA workplace as well.

DINFOS serves as an instructive point of contrast. To achieve success with the DINFOS consolidation, cultural differences between academic disciplines and military services had to be overcome. Before the consolidation, some groups considered their disciplines superior to others. At the service level, the Air Force and Navy were at first resistant to the merger, citing fears that their unique interests would be lost. Cultural differences and service-specific concerns were ultimately ad-

dressed through collaboration among groups. Such close collaboration, which began at the time of the consolidation and continues through today, would arguably not have been possible—or would have been much more difficult—if all parties involved had not worked together in the same building day after day. Some institutions may not have the opportunity to consolidate multiple facilities, and others might have good reasons not to do so. However, it is reasonable to assume that if administrative consolidation has been pursued, some level of coordination and cooperation will be expected of faculty and staff. In such cases, efforts should be made to relocate faculty and staff to represent each of the previously separate communities appropriately at each location. Travel of faculty and staff between campuses should also be supported and encouraged. Such efforts have been made at NGC.

Reevaluate and, if warranted, revise organizational structures to reflect the goals of the consolidation. If a goal of a consolidation is to merge disciplines—as it was in the case of NGC, where imagery and mapping were combined into geospatial analysis—faculty, staff, and students should be organized along lines that reflect the end goal of the merger. Leaving legacy academic departments and personnel systems intact holds back efforts to bring groups together.

Another important way to facilitate consolidation is by directing faculty and staff to work together to coordinate curricula. Curriculum building is no less important for institutions that are geographically dispersed than for those located in a centralized location. The building of a common curriculum provides an opportunity for faculty and staff to interact with each other and learn ways in which their disciplines can be coordinated. Ideally, the curriculum should include core courses that reflect the consolidated mission in addition to courses targeted at specialized subsets of students.

Improving Decisionmaking at the System Level

The experiences of the four ET&D institutions studied here demonstrate the variability with which institutions and their sponsors are formally allowed and informally capable of influencing and imple-

menting infrastructure change. In some cases, sponsors are able to exert considerable influence in bringing about change, as AFIS was in creating a consolidated DINFOS. In other cases, sponsors play more indirect roles like that of OASD(C3I) in DLIFLC's 1993 BRAC experience. Institutions themselves are usually less well positioned to affect decisions about their infrastructure. As we have seen in the cases of DINFOS, DoDPI, and NGC, institutions' governance and administrative structures can change as a result of developments at the level of parent organizations. If construction of a new facility is needed, institutions have little chance of securing the needed funding outside BRAC—and, of course, institutions cannot nominate themselves to participate in the BRAC process. On the other hand, some institutions have successfully participated in infrastructure change decisions. Examples include DoDPI's into the selection of Fort Jackson as its new home and the involvement of representatives from the three service schools in designing DINFOS's new campus.

Stakeholders at the system level also vary in the degree to which they are authorized and interested to make decisions about ET&D infrastructure. In past BRAC rounds, recommendations made by the services to the Secretary of Defense that involved ET&D infrastructure were almost always passed on to the BRAC Commission without disagreement.[3] Understandably, the Secretary of Defense and BRAC Commissioners are focused on the reconfiguration of the larger DoD infrastructure and delegate decisions about installation tenants, including ET&D institutions, to stakeholders lower in the decisionmaking hierarchy. The Under Secretary of Defense (Personnel and Readiness) (USD[P&R]) has an interest in ET&D concerns, yet OUSD(P&R) had a very limited formal role in BRAC decisions in the 1990s. In the 1995 BRAC round, a cross-service team was formed to look at pilot training across the military services, but not at the education function more generally. OUSD(P&R) will likely play a stronger role in the BRAC 2005 round, participating in a joint cross-service group that

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[3] A notable exception was the case of DLIFLC in 1993, when the Secretary of Defense voted against the Army recommendation to close the Presidio of Monterey.

will look much more broadly at education and training provided by the DoD.

Despite the variability in experiences of ET&D institutions, our review does not indicate any serious problem with the status quo. In all four cases, the major stakeholders seem to be largely satisfied with the outcomes of infrastructure change. However, the decisionmaking process leading to change might be improved to reduce turbulence and yield better outcomes for the ET&D system as a whole. In the first part of this chapter, we outlined some decisionmaking considerations in the lessons and recommendations for institutions and their sponsors. We close by citing four potential benefits of an enhanced role of system-level stakeholders in decisions about ET&D infrastructure.

System-level ET&D advocates can work to balance considerations of quality and efficiency in decisions about ET&D infrastructure. Some ET&D institutions serving the DoD are sponsored by more than one organization. In such cases, responsibility for an institution's funding, its policy direction, and curriculum oversight can be split between separate sponsors. Such a situation can complicate decisions about infrastructure change. We have seen that in some contexts, formal decisionmaking is weighted toward the interests of a single sponsor. Offices at the system level are uniquely positioned to play a coordinating role between different sponsors with an interest in the same institution. They can facilitate communication between sponsors, provide guidelines for making balanced decisions that support DoD ET&D goals, and act as arbiters in contentious cases. Even in cases where all sponsorship roles are assumed by a single organization, advocates of system-level goals can review proposed infrastructure changes to determine whether they are in line with DoD's broad ET&D mission.

Decisionmakers at the system level can set guidelines for the roles institutional leaders and sponsors play in the infrastructure change process. The cases studies presented in this report demonstrate the variability in the type and extent of involvement of sponsors and institutions in decisions about ET&D infrastructure. This variability is due to the limited formal guidelines currently in place, coupled with differences in sponsors' management styles. It might be worthwhile to

better specify the roles of institutional leaders and of sponsors other than resource sponsors in the decisionmaking process. For instance, institutions could be formally assigned the responsibility of providing up-do-date and accurate data to sponsors, and functional sponsors could be given the explicit role of forecasting effects of different options on the quality of ET&D offered.

High-level decisionmakers can provide visibility for customers of ET&D who might otherwise be left out of the decisionmaking process. Although not cited as a problem by anyone interviewed, a stakeholder group that lacks a formal role in BRAC decisionmaking about ET&D institutions is the customer. In many cases—DLIFLC included—one military service acts as the resource sponsor for a school that educates or trains other services. In such cases, there is no formal means by which customers from the other services can provide input into decisions about institutions that serve them. Capturing the customer perspective is essential if ET&D demand considerations are to be incorporated in decisions about ET&D infrastructure. Decisionmakers at the system level are positioned to advocate inclusion of the customer perspective in decisionmaking when appropriate.

Efficiency improvement efforts initiated at high levels in the DoD can be valuable opportunities to reconfigure ET&D infrastructure and improve support of ET&D missions. System-level stakeholders are in a position to consider overarching ET&D system needs in the context of BRAC and other efficiency improvement initiatives. The lack of a clear formal role in past efforts for offices charged with oversight of ET&D may have resulted in missed opportunities. If positioned properly in the decisionmaking structure, a system-level ET&D advocate can potentially use DoD-level efforts to eliminate gaps or overlaps in ET&D offerings and otherwise enhance the quality and efficiency of ET&D provided to DoD personnel.

Interview Participants

Lists of people interviewed for each case study are provided below. We are grateful to all interview participants for their contributions to this work.

Defense Information School (DINFOS)
- Michael Gannon, Director of Instructional Support, DINFOS
- Col. Ronald Grubb (Ret.), former Commander, DINFOS
- Col. Steven Hahn, former Commander, Defense Photography School
- Jerry Sexton, former Commander, Defense Visual Information School
- Bob Taylor, Deputy Director, American Forces Information Service, Office of the Assistant Secretary of Defense (Public Affairs)
- Col. Lee Thomas, Deputy Commandant, DINFOS
- David Turban, former Chief of Joint Military Personnel Division, DINFOS (at Ft. Benjamin Harrison)

Department of Defense Polygraph Institute (DoDPI)
- Bill Norris, Director
- Larry Broadwell, Chief of Instruction Division
- Beth Kraus-Guasta, Chief of Resource Management Division
- Johnnie Rodgerson, Instructor
- Jimmie Swinford, Instructor
- Michael Capps, former Director of DoDPI, Deputy Director for Developmental Programs at Defense Security Service
- Joe Gaudiano, Assistant Director for Polygraph, OASD(C3I)

Defense Language Institute Foreign Language Center (DLIFLC)
- Col. Jeffrey Johnson, Assistant Commandant
- Ray Clifford, Chancellor
- Clifford Porter, Historian
- Fred Meurer, City of Monterey City Manager
- Fred Cohen, Assistant City Manager City of Monterey
- Craig Wilson, former Director of Intelligence Policy, OASD(C3I)
- Susan Schoeppler, Army Training and Doctrine Command (TRADOC)
- Glenn Nordin, Assistant Director, Intelligence Policy, Language, OASD(C3I)
- Peter Kozumplik, retired Director of DLI Washington Office

National Geospatial Intelligence College (NGC)
- David Broadhurst, Director, Training and Doctrine Directorate, NIMA
- William Hopkins, former head of National Photographic Interpretation Center
- Terence Meehan, Chief, Office of Academic Services, Training and Doctrine Directorate, NIMA
- Col. Bob Slusar, former Commandant of the Defense Mapping School, current Commandant of the National Geospatial Intelligence School

We also extend special thanks to Thomas Lederle, Director of the Hampton Field Office, Army Base Realignment and Closure, who provided important information about guidelines and outcomes of past BRAC rounds.

Base Realignment and Closure History and Decisionmaking

Up until 1977, military installations could be closed at the discretion of the Department of Defense. In the summer of 1977, Congress enacted and President Carter signed the 1978 Military Construction Authorization Act (Title 10, Section 2687). The Act required Congressional notification prior to any sizable base closure and realignment.[1] Specifically, Congressional notification was required prior to the closure of any military installation at which at least 300 civilian personnel were employed and prior to any realignment involving at least 1,000 civilians or more than 50 percent of an installation's civilian personnel. Because the DoD did not want to fight Congress over specific base closures or realignment after notification, the practical effect of this new rule was to freeze base closure and realignment in the United States. Indeed, between 1977 and 1988, there were no substantive base closures in the United States.

To combat the closure stasis, in 1988, legislation created a commission to recommend military base closures in the United States. Members of the 1988 Base Realignment and Closure (BRAC) Commission were appointed by the Secretary of Defense and approved by the Senate. The 1988 BRAC Commission produced a set of recommended closures that were approved by Congress.[2] The key procedural innovation of the 1988 BRAC Commission approach was that the process generated a single closure list that Congress could only vote up

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[1] U.S. military bases in foreign countries are not subject to the 1978 Military Construction Authorization Act's notification provisions and may be closed at the discretion of the DoD.

[2] This discussion draws extensively upon Hix (2001).

or down, not amend. A given Congressional representative might be unhappy with specific decisions of the base closure commission, but to overturn such decisions, the whole list would have to be rejected.

After the 1988 BRAC round and, more particularly, the fall of the Berlin Wall and the disintegration of the Warsaw Pact, the DoD requested further rounds of base closure. In the Defense Base Closure and Realignment Act of 1990, Congress enacted a three-round base closure process, but with different parameters than previously. For the 1991, 1993, and 1995 BRAC Commissions, the President consulted with the Speaker of the House and the Senate Majority Leader on the appointment of two members each and with the House and Senate minority leaders on the appointment of one member each.[3] Only the final two of the eight Commission members were appointed by the President without Congressional consultation, though all eight required Senate confirmation. After 1990, BRAC Commissions produced recommendations (by majority vote of the Commissions' members), and both the President and the Congress had opportunities to reject the lists, but they could not edit nor amend the lists. To date, all BRAC Commission recommendations have been ultimately enacted.

The 1991, 1993, and 1995 BRAC Commissions were given eight criteria to consider in formulating closure and relocation decisions. Table B.1 lists those criteria.

The Department of Defense was required to submit recommendations to the BRAC Commissions in front of the Commissions' deliberations. Though not called for in the BRAC statutes, the DoD had the military services and their constituent commands develop BRAC recommendations that were then "passed up" to the DoD level before going on to the BRAC Commission.[4] There was only a limited period between when the services provided recommendations and when the DoD's recommendations were due. The Office of the Secretary of Defense (OSD) has largely, but not entirely, deferred to the services' recommendations.

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[3] Ibid.

[4] Hix's (2001) analysis of the 1995 BRAC process criticizes the DoD for not adequately considering joint, multiservice use of installations. Instead, the service-up nature of the process led to comparisons of, for instance, Army bases with one another, but did not adequately consider, for instance, using Air Force bases for Army training.

Table B.1
The 1991, 1993, and 1995 BRAC Commission Selection Criteria

Category	Criteria
Military value	1. The current and future mission requirements and the impact on operational readiness of the total force
	2. The availability and condition of land and facilities at both the existing and potential receiving locations
	3. The ability to accommodate contingency, mobilization, and future requirements at both the existing and potential receiving locations
	4. The cost and manpower implications
Return on investment	5. The extent and timing of potential cost savings, including the number of years, beginning with the date of completion of the closure or realignment, for the savings to exceed the costs (discounted present value)
Community impacts	6. The economic impact in communities
	7. The ability of both the existing and potential receiving communities' infrastructures to support bases, missions, and personnel
	8. The environmental impact

SOURCE: Hix (2001).

The Defense Base Closure and Realignment Act of 1990 gave considerable heed to the Secretary of Defense's recommendations, instructing the Commission to only overturn the Secretary's recommendations if it "determines that the Secretary deviated substantially from the force-structure plan and final criteria" set forth. Hence, the Secretary of Defense and, by extension, the military services and commands had considerable, though not absolute, influence over what was ultimately enacted by the BRAC Commissions.

In cases where the Secretary of Defense's recommendations differ from the services', the BRAC Commission is aware of the discrepancy and, de facto, invited to closely examine the case. In 1993, for instance, the Army recommended closing the Presidio of Monterey and moving the Defense Language Institute (DLI) to Fort Huachuca, Arizona. Then–Secretary of Defense Les Aspin reversed this recommendation, but the 1993 BRAC Commission chose to closely examine the case based on concerns Aspin's recommendation was politically motivated.

Despite the earlier rounds of BRAC, the DoD has argued it still has 20 to 25 percent more installations than it needs.[5] GAO/NSIAD-97-151 (1997) suggests the greatest opportunities for future BRAC actions lie in the area of support functions like depots, medical facilities, training, and laboratory and test facilities.

After a contentious debate, the National Defense Authorization Act for Fiscal Year 2002 authorized another BRAC round for 2005. To a first approximation, the nascent 2005 BRAC process will resemble the 1991, 1993, and 1995 rounds. Military value is to be the primary consideration in closure and realignment decisions. As before, the BRAC Commission's recommendations will be subject to approval or disapproval by the President and Congress, but the President and Congress will not be able to amend or edit the list. The 2005 BRAC Commission will have nine, not eight, members, to reduce the probability of tie votes.

It appears that BRAC 2005 will differ from previous rounds in a few respects. The 2002 Defense Authorization Act requires "that any selection criteria relating to the cost or savings of proposed closures take into account the impact of the closure on other federal agency operations on that installation." The Defense Base Closure and Realignment Act of 1990 that created the 1991, 1993, and 1995 BRAC rounds did not include such language. In addition, the decisionmaking structure for BRAC 2005 is designed to support opportunities for greater joint activity among the military services. Joint cross-service teams will be formed to "analyze the common business-oriented support functions."[6] The intent of these changes is to align DoD's infrastructure with the new force structures that will support current defense strategy.

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[5] U.S. Department of Defense (2001).

[6] See Secretary of Defense Memorandum (2002) for details of the decisionmaking structure for the BRAC 2005 round.

Interview Protocols

Defense Information School

RAND has done a series of research projects sponsored by the DoD Chancellor's Office. In our current effort, RAND has been asked to help the Chancellor encapsulate some "lessons learned" about educational institutions from earlier rounds of BRAC. We know that DINFOS represents the consolidation of previously separate schools from Fort Benjamin Harrison, Lowry AFB, and Pensacola NAS, two of which were closed as a result of the 1991 BRAC round. We therefore wanted to get your perspectives and insights on the consolidation process.

A. The Decision to Consolidate
- Who was involved in the decision to consolidate? AFIS? The Army, Navy, Air Force? The schools' customers? Who else? Who were the key decisionmakers?
- What was the decisionmaking process, and what issues were considered in the decision (e.g., costs, customers, administration efficiencies, etc.)?
- What prompted the decision to consolidate? What other options were considered for the schools? What were the pros and cons of those options? Could the school have stayed at the closed Benjamin Harrison (as DFAS did)?
- Why was Fort Meade chosen to be the school's destination versus other possible locations (e.g., Fort Jackson, staying at Pensacola NAS)?

- Were there concerns with the decision to consolidate and move at the time? If so, what were the concerns? How satisfied were the major stakeholders with the decision at that time?

B. The Consolidation Process

- Describe the process of adjustment to the consolidation and move to Fort Meade. What went well and badly for DINFOS during that process?
- How large were the three separate schools prior to the consolidation? How did the sum of their sizes compare to the school's postconsolidation size? And to its current size?
- How long did it take to consolidate and relocate? Were there disruptions to the academic calendar?
- What changes to curriculum, student body, faculty size and composition, workload, and expenditures resulted from the consolidation? Were there any unexpected changes?
- What was the nature of the administrative change required for consolidation and relocation?
- How much did the consolidation and moves cost?
- Did the schools' sources of funding change after the consolidation? Who pays for the education offered by DINFOS?
- Did the organizational cultures of the three schools differ in significant ways before the consolidation? Were cultural issues a factor during the consolidation process?
- Were there any other important changes?

C. Quality and Cost-effectiveness Outcomes

- How satisfied are you and how satisfied have faculty, administrators, staff, students, and other customers been with the decision to consolidate?
- Were the effects of the decision on quality and cost-effectiveness assessed? By whom?
- How, if at all, did the decision to consolidate affect the quality and cost-effectiveness of the education offered by DINFOS?

D. Recommendations and Future Role of Efficiency Improvement Initiatives at the Defense Information School

- Please describe any current internally or externally driven efficiency improvement efforts at DINFOS.
- What "lessons learned" can you pass along to decisionmakers and other DoD educational institutions that might undergo changes as a result of future efficiency improvement efforts or future rounds of BRAC?
- If DINFOS were faced with infrastructure changes again, what might be done differently?

Department of Defense Polygraph Institute

RAND has done a series of research projects sponsored by the DoD Chancellor's Office. In our current effort, we have been asked to help the Chancellor encapsulate some "lessons learned" about educational institutions from earlier rounds of BRAC. We know the 1995 BRAC round resulted in the Polygraph Institute being moved from McClellan to Jackson. We therefore wanted to get your perspective and insights on that process and its outcomes.

A. The Decision to Relocate

- Who was involved in the decision to relocate the Polygraph Institute? TRADOC? ASD(C3I)? DoDPI's customers? Who else? Who were the key decisionmakers?
- What was the decisionmaking process, and what issues were considered in the decision (e.g., costs, customers, administration efficiencies, etc.)?
- Why was Jackson chosen to be the Institute's destination versus other possible locations, upon the closure of McClellan? Were other options considered for the school at the time? If so, what were the pros and cons of each of those options?

- Were there concerns with the decision to relocate at the time? If so, what were the concerns? How satisfied were the major stakeholders with the decision at that time?

B. The Relocation Process
- Describe the relocation process. What went well and badly for DoDPI during that process?
- How long did it take to relocate? Were there disruptions to the academic calendar? Was new facility construction required?
- What changes to curriculum, student body, faculty size and composition, workload, and expenditures resulted from the move? Were there any unexpected changes?
- What was the nature of the administrative change required for the move?
- How much did the relocation effort cost? Have administrative costs increased or decreased since the relocation? What about student-related costs such as housing?
- Did the school's sources of funding change after the move? Who pays for the education offered by DoDPI?
- Were there any other important changes?

C. Quality and Cost-effectiveness Outcomes
- How satisfied are you and how satisfied have faculty, administrators, staff, students, and other customers been with the decision to relocate DoDPI?
- Were the effects of the decision on quality and cost-effectiveness assessed? By whom?
- How, if at all, did the decision to relocate affect the quality and cost-effectiveness of the education offered?

D. Recommendations and Future Role of Efficiency Improvement Initiatives at the Department of Defense Polygraph Institute
- Please describe any current internally or externally driven efficiency improvement efforts at DoDPI.
- What "lessons learned" can you pass along to decisionmakers and other DoD educational institutions that might undergo changes

as a result of future efficiency improvement efforts or future rounds of BRAC?

- If DoDPI were faced with infrastructure changes again, what might be done differently?

Defense Language Institute Foreign Language Center

RAND has done a series of research projects sponsored by the DoD Chancellor's Office. In our current effort, RAND has been asked to help the Chancellor encapsulate some "lessons learned" about educational institutions from earlier rounds of BRAC. We know the 1991 BRAC round closed Fort Ord, and we are interested in how it affected DLI. We are also interested in DLI's experience with the 1993 BRAC round.

A. The Decision to Stay After the Closure of Fort Ord

- Who was involved in the decision to stay? TRADOC? ASD(C3I)? DLI's customers? Other sources of oversight? Who were the key decisionmakers?
- What was the decisionmaking process and what types of issues were considered (e.g., costs, customers, administrative efficiencies, etc.)? Did official or unofficial relationships with the Monterey Institute or the Naval Postgraduate School bear on the decision?
- What options were considered for DLI? What were the pros and cons of those options?
- Were there concerns with the decision to stay at the time? If so, what were the concerns? How satisfied were the major stakeholders with the decision at that time?

B. The Change Process

- Describe the process of adjustment to the closure of Fort Ord. What went well and badly for DLI during that process?
- How long did it take for Fort Ord to close? Was the transfer of administrative functions from Fort Ord to the Presidio disruptive for DLI? If so, how?

- What changes to curriculum, student body, faculty size and composition, workload, and expenditures resulted from the closure of Fort Ord? Were there any unexpected changes?
- Did DLI's sources of funding change upon Fort Ord's closure? Who pays for the education offered by DLI?
- Were there any other important changes?

C. Quality and Cost-effectiveness Outcomes

- How satisfied are you and how satisfied have faculty, administrators, staff, students, and other customers been with the decision to stay at the Presidio?
- Were the effects of the decision on quality and cost-effectiveness assessed?
- How, if at all, did Ord's closure affect the quality and cost-effectiveness of the education offered by DLI? What is the basis for your view?

D. The Defense Language Institute's Experience in the 1993 Base Realignment and Closure Round

- Who put forward the recommendation to close DLI and outsource its functions in 1993?
- Describe the 1993 experience. In your view, did Fort Ord's closure and the decision to stay in Monterey contribute to DLI's experience in 1993? If so, how?

E. Recommendations and Future Role of Efficiency Improvement Initiatives at the Defense Language Institute

- What "lessons learned" can you pass along to decisionmakers and other DoD educational institutions that might undergo changes as a result of future rounds of BRAC?
- Please describe any current internally or externally driven efficiency improvement efforts at DLI.
- If DLI were faced with infrastructure changes again, what might be done differently?

National Imagery and Mapping College

RAND has done a series of research projects sponsored by the DoD Chancellor's Office. In our current effort, RAND has been asked to help the Chancellor encapsulate some "lessons learned" about educational institutions from past efforts to improve efficiency. We know NIMC was established in part to address concerns about efficiency, and it has evolved considerably in recent years. We want to understand NIMC's structural evolution, in terms of the decisionmaking that supported it and its outcomes to date.

A. The Decision to Consolidate the Defense Mapping Agency and the National Imagery and Analysis School Under the National Imagery and Mapping College

- Describe the current structure of NIMC. How do the four campuses interact? Were the campuses each separate homes to separate schools at one time? Are they now? Do faculty move between campuses? Are there faculty who teach both imagery and mapping? Are they part of the mobile training teams?
- Who was involved in the decision to establish NIMC and bring the DMS and NIAS under its umbrella? DCI? ASD(C3I)? NIMC's customers? Who else? Who were the key decisionmakers?
- What was the decisionmaking process, and what issues were considered in the decision (e.g., costs, customers, administration efficiencies, etc.)?
- Were other options considered for the two schools at the time? If so, what were the pros and cons of each of those options?
- Were the two schools formally consolidated?
- How independent are they today in functional and collegial terms?
- Were there concerns with the decision to consolidate at the time? If so, what were the concerns? How satisfied were the major stakeholders with the decision at that time?

B. The Process of Establishing the National Imagery and Mapping College
- Describe the process of adjustment to the consolidation. What went well and badly for NIMC during that process?
- How large were the two separate schools prior to the consolidation? How did the sum of their sizes compare to the school's post-consolidation size? And to its current size?
- How long did it take to consolidate? Were there disruptions to the academic calendar? Was new facility construction required?
- What changes to curriculum, student body, faculty size and composition, workload, and expenditures resulted from the consolidation? Were there any unexpected changes?
- What was the nature of the administrative change required for consolidation?
- How much did the consolidation cost?
- Did the schools' sources of funding change after the consolidation? Who pays for the education offered by NIMC?
- Did the organizational cultures of the two schools differ in significant ways before the consolidation? Were cultural issues a factor during the consolidation process?
- Were there any other important changes?

C. Quality and Cost-effectiveness Outcomes
- How satisfied are you and how satisfied have faculty, administrators, staff, students, and other customers been with the decision to establish NIMC and consolidate previously separate institutions?
- Were the effects of the decision on quality and cost-effectiveness assessed? By whom?
- How, if at all, did the decision to consolidate affect the quality and cost-effectiveness of the education offered?

D. The Creation of the School of Leadership and Professional Studies
- What was the impetus for the creation of the SLPS? Why was a school created as opposed to course offerings within the existing schools?

- How did the experience of adding the new school compare with the initial consolidation? Did any new cultural issues arise in the creation of the school?
- What is the relationship between SLPS and DLAMP, if any?

E. Recommendations and Future Role of Efficiency Improvement Initiatives at the National Imagery and Mapping College
- Please describe any current internally or externally driven efficiency improvement efforts at NIMC.
- What "lessons learned" can you pass along to decisionmakers and other DoD educational institutions that might undergo changes as a result of future efficiency improvement efforts or future rounds of BRAC?
- If NIMC were faced with infrastructure changes again, what might be done differently?

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